

APPENDIX

Descriptions and maps of 60 conservation priority wetlands

Idaho Panhandle Sites

Kootenai River Valley — This site is comprised of the Kootenai River banks and stands of cottonwood on point bars within the remnant floodplain. Included in the site are wet meadows and riparian woodland and shrubland. Riverine floodplain is included where Trout Creek enters the Kootenai River, one of the only areas not completely developed for agriculture. The Kootenai River is mostly constrained by levees built to protect agricultural lands from annual flooding. However, potential for restoration exists on lands adjacent to the river, especially in depressions and old meander scars. For example, marshes fed in part by Kootenai River hydrology have been restored at Boundary Creek, Smith Creek, and Ball Creek. Thousands of migrating waterfowl and other birds utilize the Kootenai River Valley during migration. In addition to a high concentration of waterbird species, the Kootenai River supports an endemic white sturgeon population and a suite of other rare fish species.

Kootenai National Wildlife Refuge — The Kootenai National Wildlife Refuge is in the former floodplain of the Kootenai River. Water is diverted into the refuge from Myrtle Creek and pumped from Deep Creek and the Kootenai River to maintain over 800 acres of permanent ponds, marshes, meadows, and waterfowl food plots. Narrow bands of black and eastern cottonwoods line the banks of creeks and the Kootenai River and small patches of Bebb's willow are present. Ponds within the refuge support extensive marshes of cattail and hardstem bulrush. Wet meadows are mostly dominated by reed canarygrass, while drier areas support a mix of pasture grasses. Opportunities for conservation and restoration exist on private lands. There is a high concentration of waterbird species, including a black tern colony, in the area.

Kootenai River (Moyie River to Bonners Ferry) — This reach of the Kootenai River has numerous patches of remnant floodplain. There are many alluvial bars and islands where cottonwoods and willows can establish. Riparian woodland and shrubland occupies stable terraces and islands within the remnant floodplain. Wet meadows occupy gaps in the tree and shrub habitat. The Kootenai River is habitat for several globally rare fish species.

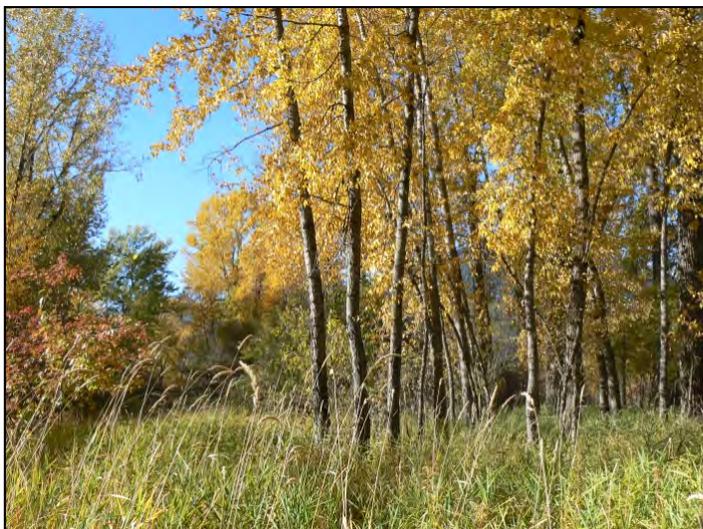
Bismark Meadows — This site occurs in the glacial carved Priest Lake basin. Bismark Meadows contains a unique mosaic of peatland (fen) communities along the low-gradient, meandering Reeder Creek. The most extensive community within the mosaic is shrub carr. Interspersed among the scrub-shrub wetlands are sedge-dominated rich fens supporting bog cranberry and other rare plant species. Bismark is one of the few valley peatlands in north Idaho that formed along low gradient streams and not around a pond or lake. Grizzly bear utilize the area. The site is adjacent to Hager Lake, a peat-filled glacial kettle pond that contains one of the more extensive floating mats in Idaho.

Pack River (upstream of Highway 95) — Large amounts of sandy alluvium are carried by the river and deposited on numerous alluvial point and channel bars as it meanders through the

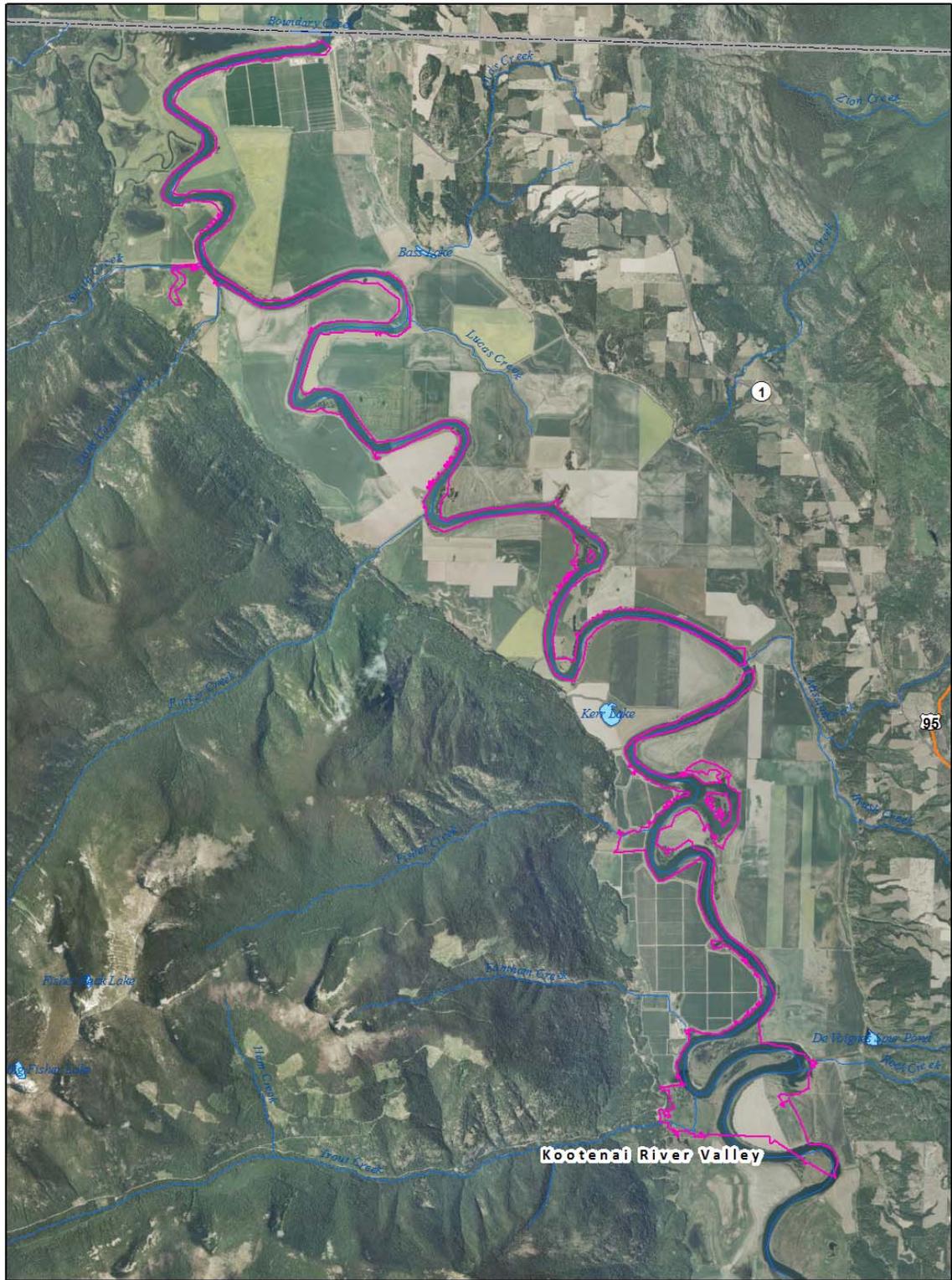
wide valley. Western red cedar and black cottonwood woodlands and willow - alder – redosier dogwood shrublands form a discontinuous riparian belt. Valley bottom and floodplain not supporting woody vegetation are grassy meadows. Although recovering from historic logging impacts, current land uses (e.g., rural housing, roads) in the watershed influence valley bottom condition. Restoration opportunities exist. The area is rich with wildlife, including grizzly bear. Bull trout are present.

Pend Oreille River — This site includes marshes and meadows fringing the Pend Oreille River. Wet meadows are dominated by reed canarygrass and sedges. Occasional marsh patches, comprised of cattails and hardstem bulrush, are also present. Pondweed species characterize the aquatic vegetation. The transition to uplands is somewhat abrupt with a narrow band of thinleaf alder leading to coniferous forests dominated by western redcedar and grand fir. The area is important for many waterbird species and migrating waterfowl. Bald eagles winters along the shores and backwater sloughs of the Pend Oreille River. The site is of general biodiversity interest and valued for recreation.

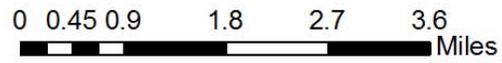
Clark Fork River Delta — The Clark Fork River forms a delta where it enters Lake Pend Oreille. The numerous islands support mature western redcedar and grand fir forest, black cottonwood bottomland forest, willow and red-osier dogwood riparian shrublands, and wet meadows. Wettest areas are dominated by marsh, while reed canarygrass dominates many meadows (especially where water levels have been manipulated). Migrating and wintering waterfowl are supported in large numbers (counts as high as 60,000 ducks, 15,000 Canada Geese, and 2,000 tundra swans, as well as grebes; common loon nesting occurs). Lake Pend Oreille is an important wintering area for bald eagles, with over 300 present in the delta by early December. Lake Pend Oreille is also an important nesting area for ospreys, with the greatest densities occurring in the Clark Fork River delta. There is a high concentration of colonial nesting birds. Globally rare plant species are supported. The area has very high recreation opportunities.

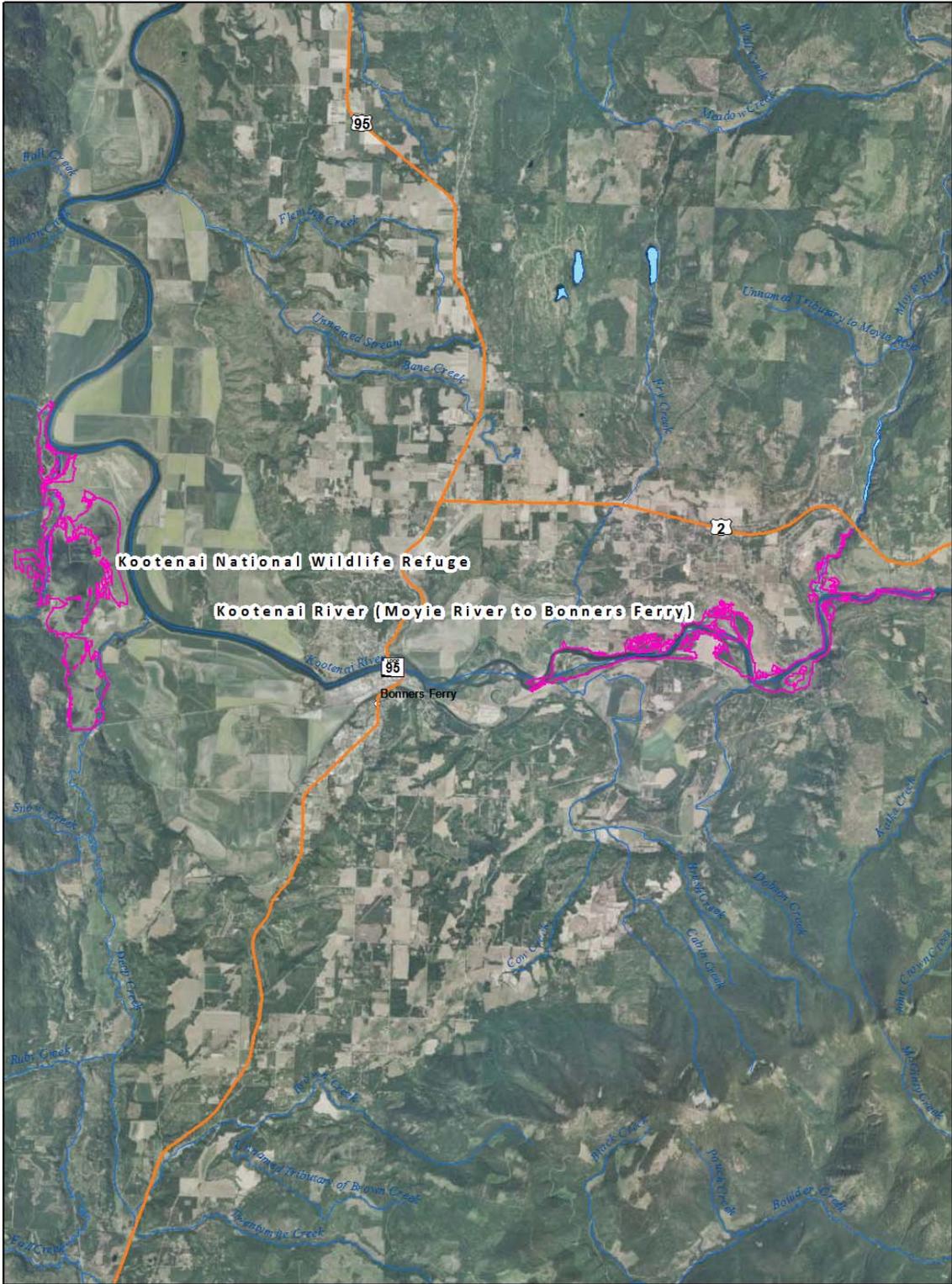


Typical Clark Fork Delta black cottonwood riparian woodland. Photo by C. Murphy.

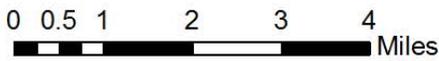


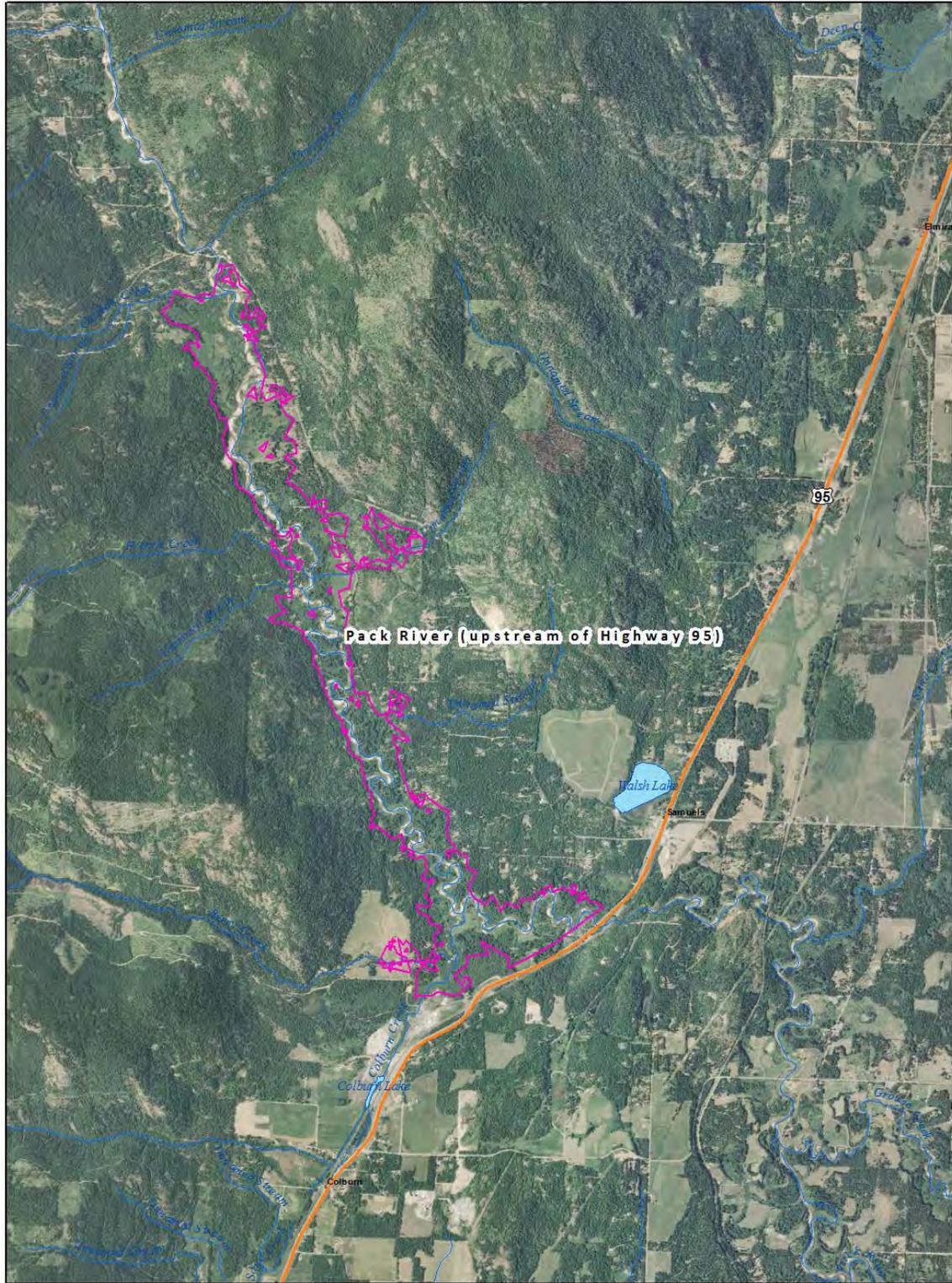
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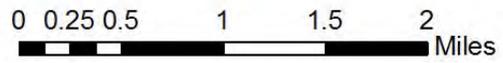


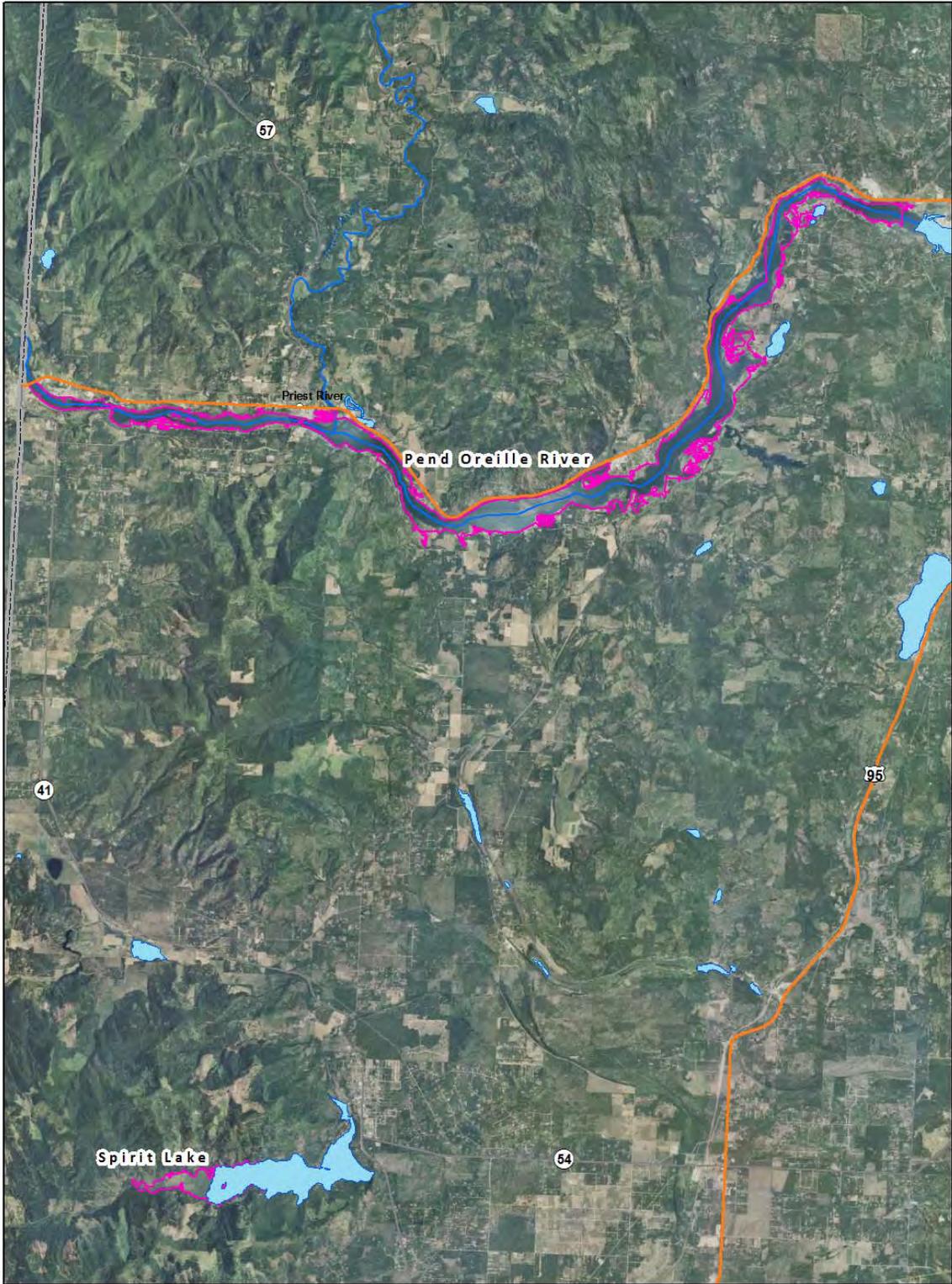
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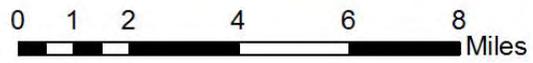


 **Priority Wetland Sites**





 **Priority Wetland Sites**



North-central Idaho Sites

Spirit Lake — A vast shrub-dominated wetland occupies the valley bottom where Brickel Creek enters Spirit Lake. Riparian shrubland extends up Brickel Creek. Patches of wet meadow and marsh occur in depressions and saturated areas. Peat accumulation and floating mats are likely to occur in these settings. Brickel Creek has been channelized, appearing to drain a portion of the wetland that is used as moist pasture. Opportunities for restoration exist. Habitat for globally rare plant species is present.

Hauser Lake — Hauser Lake receives water from several small, apparently ephemeral streams from adjacent hills. An extensive valley fen and floating mat occupies the shallow bays on the western and southwestern margins of the lake. This fen is characterized by woollyfruit sedge, threeway sedge, buckbean, purple marshlocks, roundleaf sundew, and *Sphagnum* moss. Rare plants are present. The margins of the fen are covered with a dense shrub carr dominated almost exclusively by rose spiraea, with occasional thinleaf alder. Toward the lake, the fen becomes dominated by beaked sedge and reed canarygrass, transitioning to river bulrush, common spikerush, and woollyfruit sedge in shallowly flooded areas. Cattail and hardstem bulrush marsh occurs in deeper water. Other areas are characterized by reed canarygrass meadow. The lakebed is densely vegetated with aquatic species, including Rocky Mountain pondlily, water shield, pondweed species, common bladderwort, and common waterweed.

Coeur d'Alene River - Cataldo Mission Flats — This section of the Coeur d'Alene River valley has extensive marshes and wet meadows. A high diversity of marsh and aquatic plant communities fill floodplain depressions, sloughs, and old oxbows of the river. Common reed is widespread in these marshes. Black cottonwood gallery forests and riparian shrubs, especially rose spiraea, line the river, its backwater sloughs, islands, and associated marshes. During large flood events these wetlands receive deposits of contaminated sediments from historic mining in the upper watershed. Toxic elements are stabilized by the dense marsh vegetation. The site is important bird habitat and includes a rare black tern colony.

Coeur d'Alene River (Rose Lake to Thompson Lake) — The reach of Coeur d'Alene River downstream of Cataldo supports significant wetlands important for recreation, as well as bird and wildlife habitat. Extensive and diverse marsh, peatland, black cottonwood gallery forest, moist conifer forest, and willow - birch riparian habitats occur in and adjacent to the floodplain. Most marshes and peatlands are associated with lakes occurring in the valley. Some lakes support floating and fixed peat mats of *Sphagnum* moss and sedge, with rose spiraea around their margins. Lakes are usually hydrologically connected to the floodplain. On the river, hydrologic processes are natural, but flood and erosion control developments have altered connectivity to the floodplain in some areas. Historic mining in the upper watershed has contributed contaminated sediments to the system that are deposited in this stretch of the river and stabilized by wetland vegetation. Maintenance of wetland and riparian habitat in this

site is critical for shoreline stabilization and water quality improvement. There is a high concentration of waterbird and colonial nesting bird species, including black terns.



Scrub-shrub wetland at Rose Lake in Coeur d'Alene River valley. Photo by C. Murphy.

Saint Joe River - River in a Lake — Natural levees along the Saint Joe River create a "river in a lake" where it enters the south end of Lake Coeur d'Alene. The levees support extensive riparian forests dominated by both black cottonwood and quaking aspen. Stands of trees frequently have a native grass understory dominated by bluejoint and sedges. Some shrub stands are present, including rose spiraea and Bebb's willow. Marshes and aquatic beds occur in the river channel and lake fringes, characterized by hardstem bulrush, narrowleaf water plantain, Rocky Mountain pondlily, and pondweeds. These diverse and productive wetlands support a high concentration of waterbird species and globally rare plants. There are high recreation opportunities.

Saint Joe River Valley — This site includes the valley of the lower Saint Joe River as it meanders across a wide alluvial valley. Riparian black cottonwood trees line the banks and larger stands occur on point bars within the remnant floodplain. Included in the site are numerous meadows and marshes. Although most wetlands have been converted to agricultural-related uses in the downstream half, intact marshes and wet meadows occur upstream where they fill old meander scars and depressions in the valley bottom. Riparian and floodplain woodland and shrubland habitats are also more plentiful in the upstream half of the site. The river is often constrained by levees built to protect agricultural lands from flooding. However, potential for restoration exists on lands adjacent to the river. The site has habitat for globally rare plant species. High recreation opportunities exist.

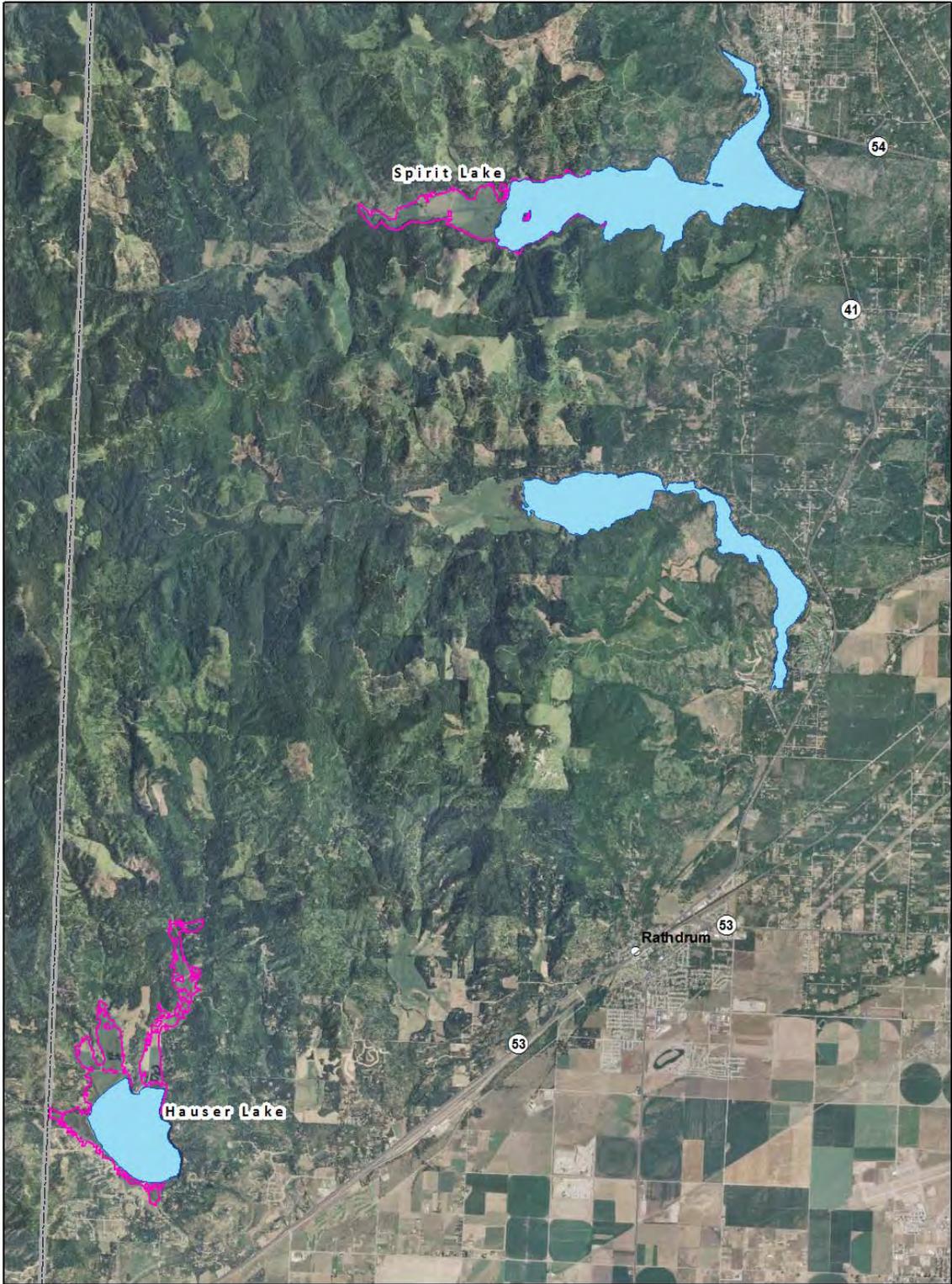
Saint Joe River (Herrick to Calder) — The floodplain in this reach of the Saint Joe River supports a nearly continuous riparian corridor of black cottonwood forest with an understory dominated by redosier dogwood, alderleaf buckthorn, and redosier dogwood. The river has a natural

hydrologic regime. Annual flooding and alluvial deposition create many cobble bars and islands that support dusky willow and black cottonwood reproduction. Wet meadows dominated by non-native reed canarygrass and creeping bentgrass are common. There is habitat for harlequin duck, Coeur d'Alene salamander, and globally rare plant species. The river supports a valued native cutthroat trout fishery.

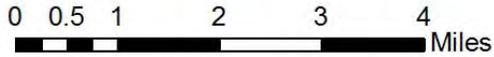
Saint Maries River Valley — The Saint Maries River valley immediately upstream of the confluence with the Saint Joe River is a wide wetland complex supporting marsh, riparian woodland and shrubland, and meadow habitat. Cattails are common in marshes, while sedges and rushes occupy wet meadows. Backwater sloughs and oxbow ponds are present. Black cottonwood and western red cedar trees occur on levees and higher terraces. Although the lower Saint Maries River has a levee system, the whole valley can flood during extreme flood events. Portions of the valley bottom have been drained for agricultural-related uses. Restoration opportunities exist. Habitat for globally rare plant species is present.

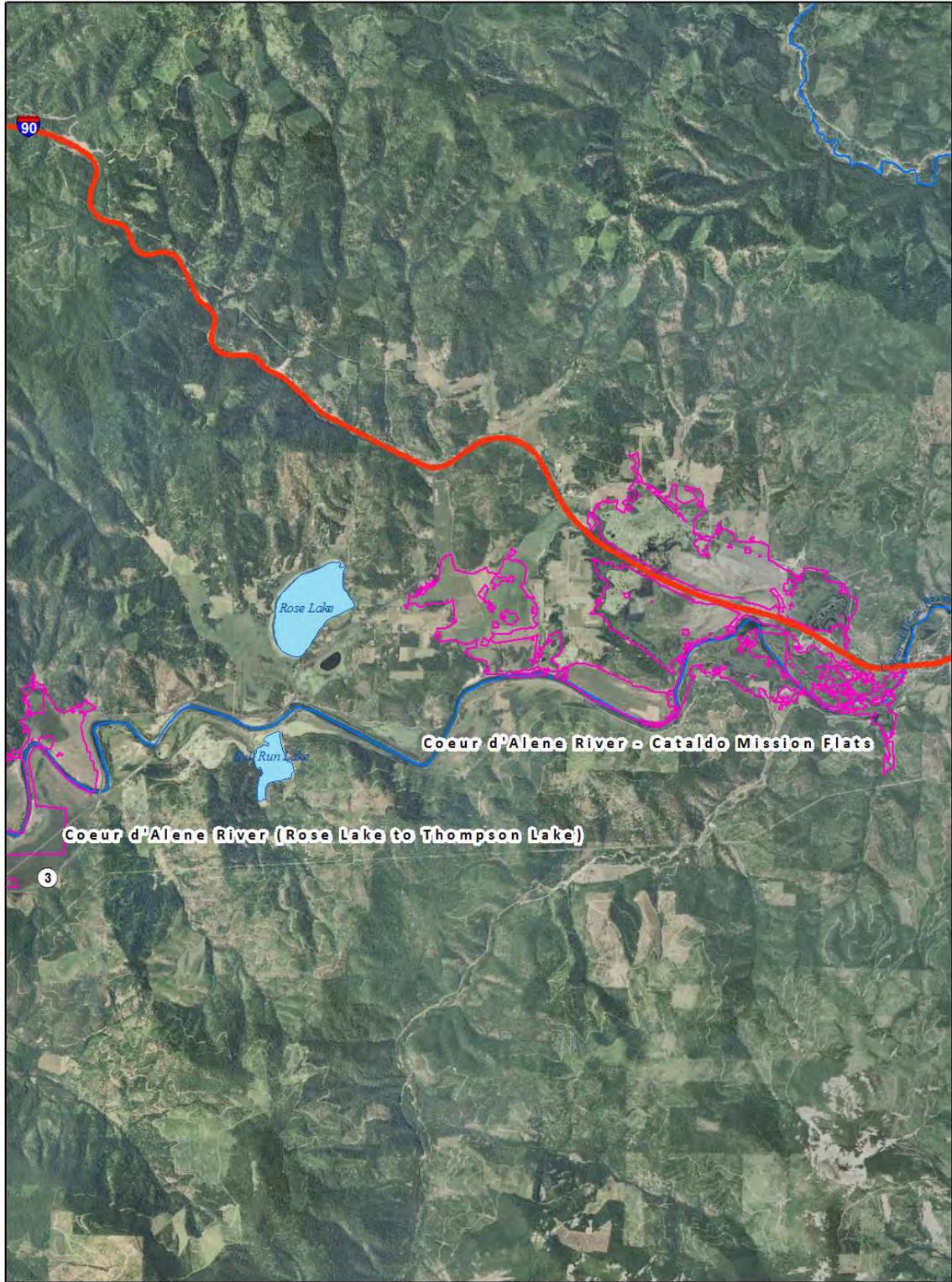
West Fork Saint Maries River Meadows — The meadows in the vicinity of Clarkia lie in an ancient lake bed. Mesic and wet meadows cover the valley bottom. Forks of the Saint Maries River are sinuous and low gradient, flooding parts of the meadow in the spring. Portions of the meadows turn blue with the bloom of camas in the spring. Many of the meadows are used as pasture and include seeded grasses. Alder and other shrubs form patchy riparian shrubland on some stream banks. There is habitat for Coeur d'Alene salamander, a rare amphibian. Globally rare plant species habitat is also present.

Elk Creek - Elk City Meadows — This large wet meadow complex is fed by several perennial creeks (Big Elk Creek, Little Elk Creek, Monroe Creek, Swale Creek), along with ephemeral streams. These water sources flow through broad, flat bottomed alluvial valleys. Large areas of the wetland complex were managed for hay production or used as seasonally moist cattle pasture. Introduced hay and forage grasses (especially bentgrasses) dominate most areas; however, relict wet meadow vegetation is occasionally present. Forested and scrub-shrub wetlands are relatively rare. Small patches of shrubs, including Lemmon's willow, and occasionally trees, such as Engelmann spruce, are present. Although current wetland functions are somewhat reduced, there are excellent opportunities for restoration. The area is rich with wildlife. The site also supports a globally rare plant species.

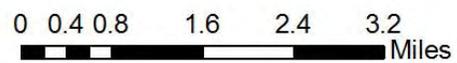


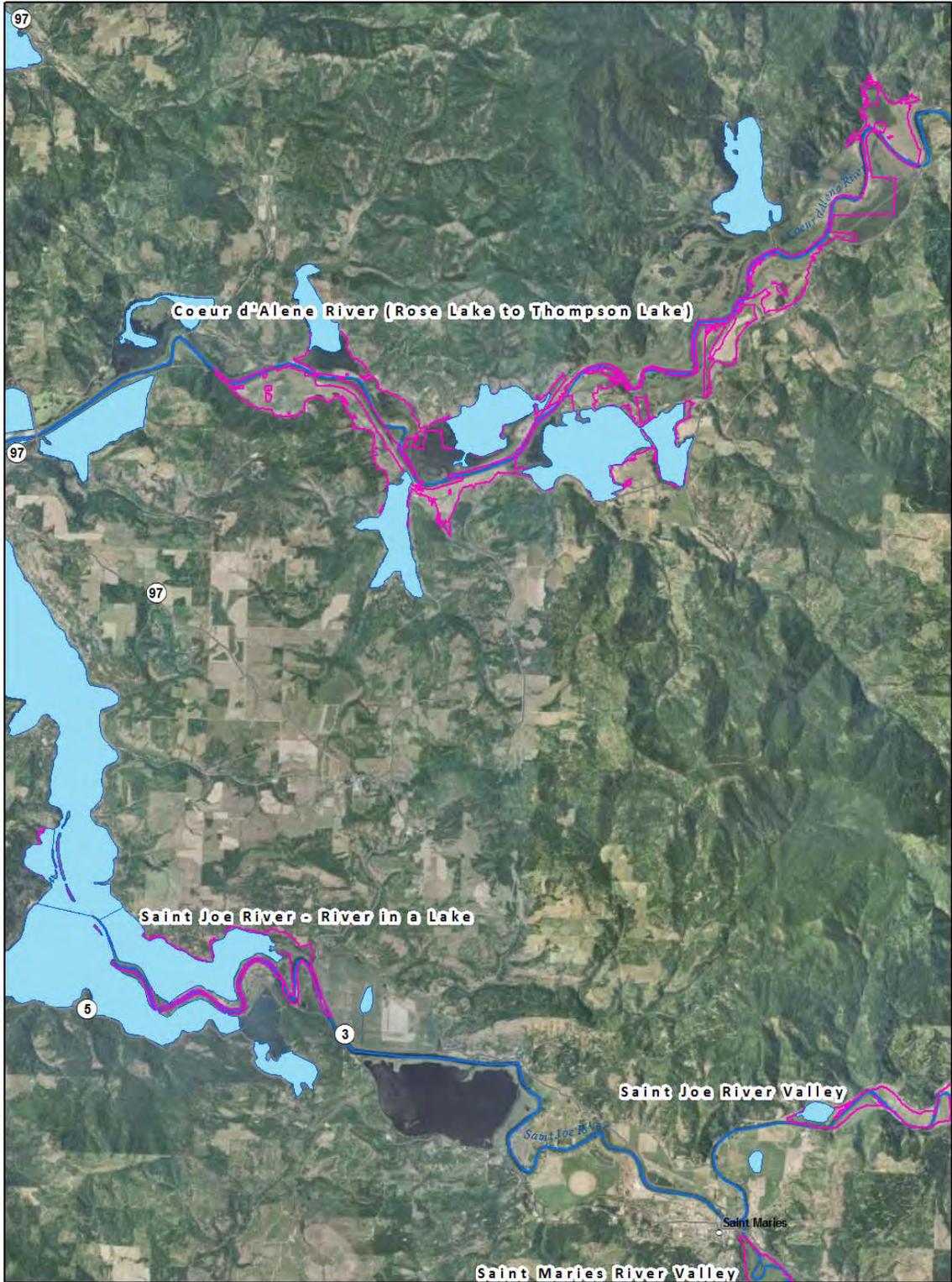
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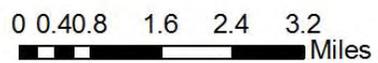


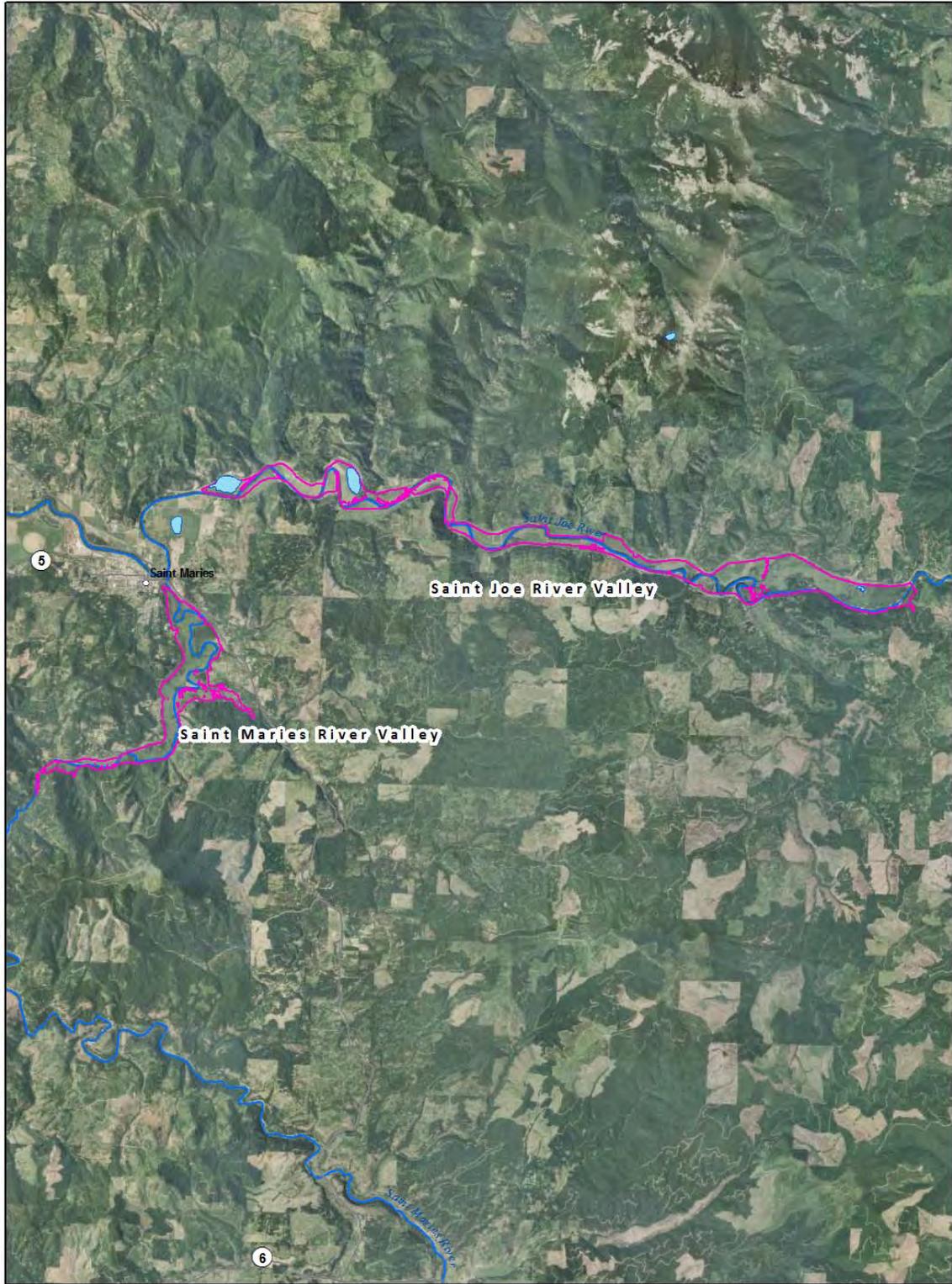
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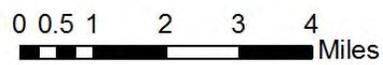


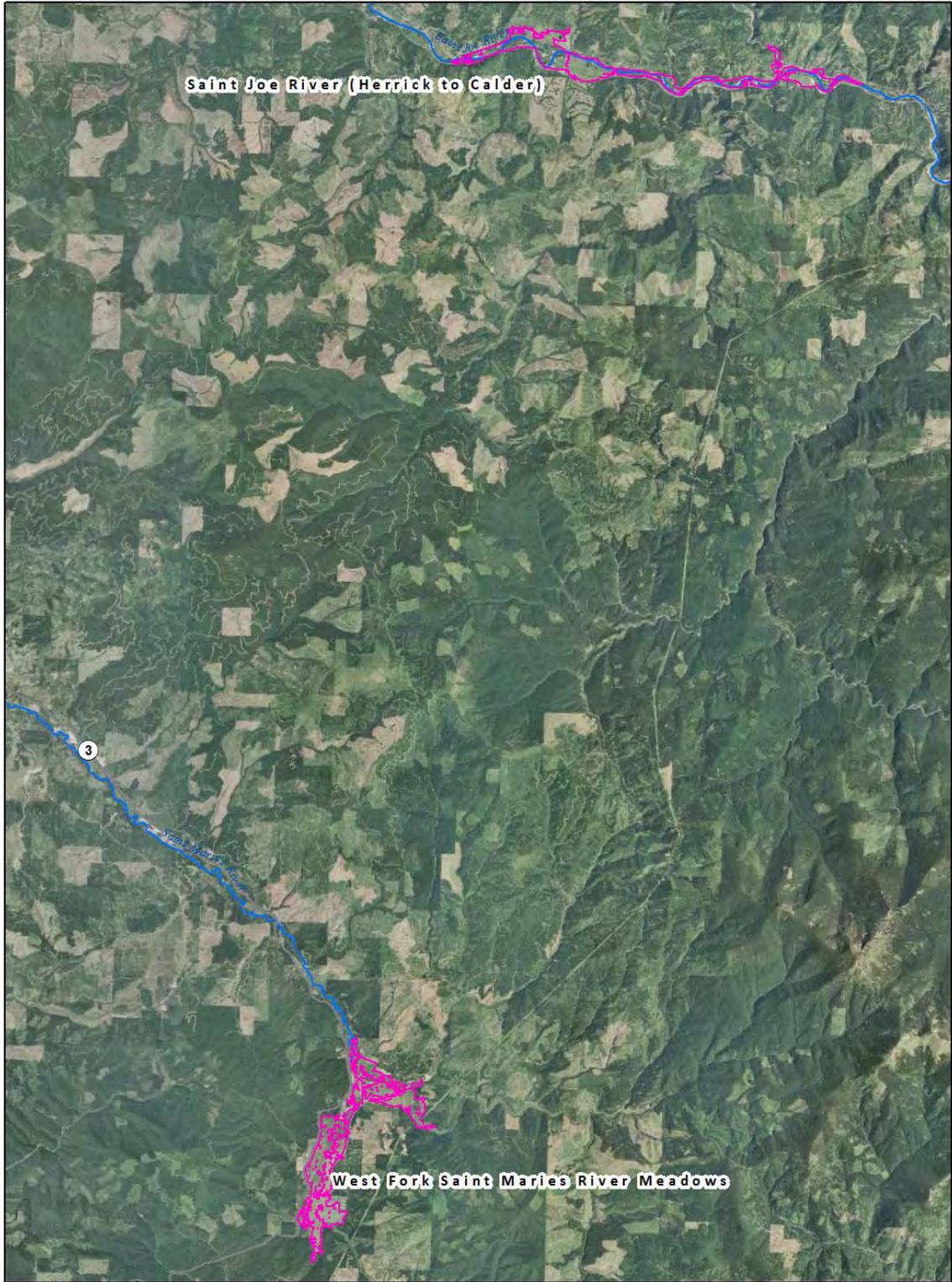
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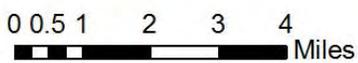


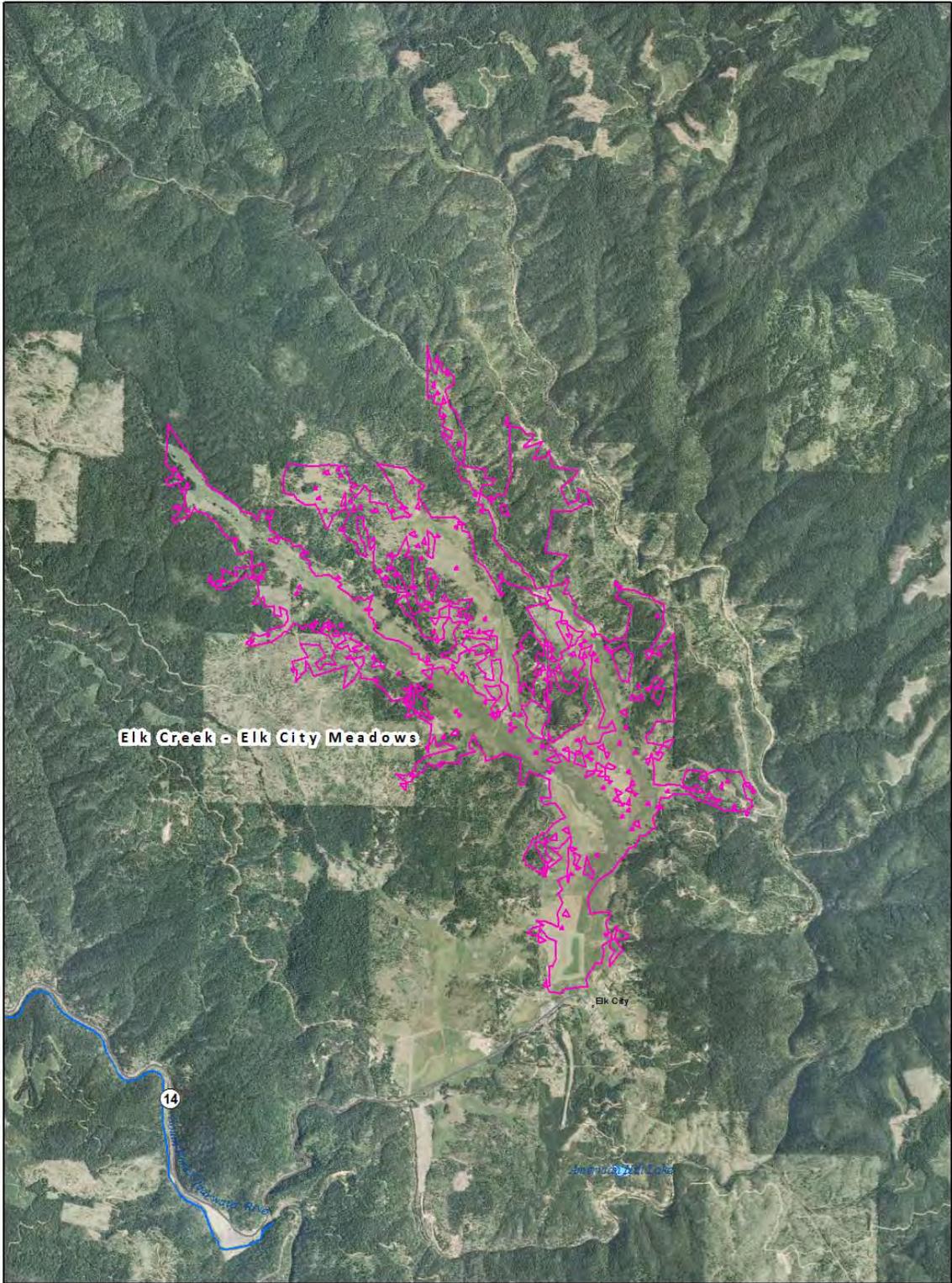


Saint Joe River (Herrick to Calder)

West Fork Saint Maries River Meadows

 Priority Wetland Sites





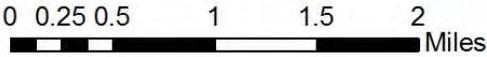
Elk Creek - Elk City Meadows

Elk City

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Sagehen Lake

 **Priority Wetland Sites**



West-central Idaho Sites

Little Salmon River - Meadows Valley — Meadows Valley occurs in the wide valley of the meandering Little Salmon River. The area is characterized by wet meadows with patches of tufted hairgrass with interspersed swales, seasonal pools, and flood overflow wetlands occupying old meander scars. Beaked sedge dominates annually flooded or saturated depressions. Swales and meander scars that pool water early in the summer, but which are dry by fall support narrowleaf burred and common spikerush. There are several seeps and streams entering the site from toeslopes. These often have small patches of Bebb's willow, black hawthorn, or other shrubby vegetation. The area is commonly utilized for livestock grazing. Other than widespread black hawthorn, riparian shrubs, especially willows, are patchy. Some areas are currently being restored. A geothermal spring is present. Habitat for northern Idaho ground squirrel habitat and globally rare plant species also occurs.

Little Payette Lake Outlet — This site covers wet meadow and riparian woodland located where Lake Fork Creek exits Little Payette Lake. Lake Fork Creek meanders through a valley where its floodplain supports lodgepole pine, black cottonwood, and aspen riparian woodlands, interspersed willow shrublands, and sedge, rush, and grass meadows. There are large wet meadows at the southern end of the site.



Floodplain of North Fork Payette River. Point bar alluvial deposits support black cottonwood and willow reproduction. Photo by M. Jankovsky-Jones.

North Fork Payette River (McCall to Cascade Reservoir) — The North Fork Payette River meanders has created a broad riparian wetland (up to 1 mile wide) as it meanders from McCall to Cascade Reservoir. The wetland includes a complex mosaic of aquatic bed, emergent, scrub-shrub, and forested wetlands on landforms carved by the river. Coarse sandy alluvium deposits are sites for black cottonwood and willow regeneration. Logjams are common on the river (especially the lower reaches near the reservoir) and contribute to the development of new channels. Old oxbows and former channels support open water habitat dominated by Rocky Mountain pondlily. Other abandoned meanders are filled with swards of beaked and aquatic sedge. Stands of willows are also common and plant diversity is high. Former meanders are sometimes occupied by peatlands dominated by bog birch, analogue sedge, and Cusick's sedge.

These peatlands are sometimes fed by seeps and springs emanating from the valley walls. Better drained terraces support wet meadows of Baltic rush and tufted hairgrass. Quaking aspen and moist conifer stands border wetlands. Globally rare plant species are present.

Lake Fork Creek — Lake Fork Creek flows into the north end of Cascade Reservoir. The floodplain supports emergent, scrub-shrub, and forested wetland habitats. Wetlands are best developed in side channels, backwater sloughs, and old oxbows in the valley bottom rather than adjacent to the Lake Fork channel. Seasonally saturated benches support Lemmon's willow, Geyer's willow, and meadows of tufted hairgrass, Baltic rush, and Nebraska sedge. Seeps and springs emanate at toeslopes along valley walls and support stands of cattail, aquatic sedge, willows, and peatlands. Peatlands often occur in old oxbows. These fens are characterized by rose spiraea, bog blueberry, bog birch, and willows with understories of analogue sedge, beaked sedge, few-flowered spikerush, mud sedge, and *Sphagnum* moss.



Valley wall springs feeding a peatland in an old oxbow of Lake Fork Creek. Photo by M. Jankovsky-Jones.

Long Valley (Boulder Creek - Willow Creek) — The area of Long Valley just east of the town of Donnelly supports an extensive wet and mesic meadow complex. Much of the area is used as hay meadow and pasture. Boulder Creek is a low-gradient, highly sinuous stream flowing through the center of the area. It feeds some of these meadows during flood events. Willow Creek occurs at the southeast edge of the area. The wettest meadows follow the floodplain of Boulder Creek. Scattered willows and lodgepole pine occur in the valley of Boulder Creek. Many of the meadows are utilized for livestock grazing. Seeded grasses, including reed canarygrass, are widespread. Restoration opportunities are present. Recreation opportunities are high, due to the proximity to Donnelly.

Gold Fork River — The lower Gold Fork River supports a rich suite of wetland and riparian habitats, including fens of high conservation concern. Extensive shrublands consisting of Lemmon's willow, Geyer's willow, Booth's willows, and other species, interspersed by meadows, occur in the Gold Fork River floodplain and adjacent seasonally flooded areas. Patches of cattail marsh occur in permanently or semi-permanently flooded depressions. Areas

of constantly high groundwater support *Sphagnum* moss-dominated peatlands (poor fens). These fens include mosaics of bog birch, analogue sedge, and other sedges.

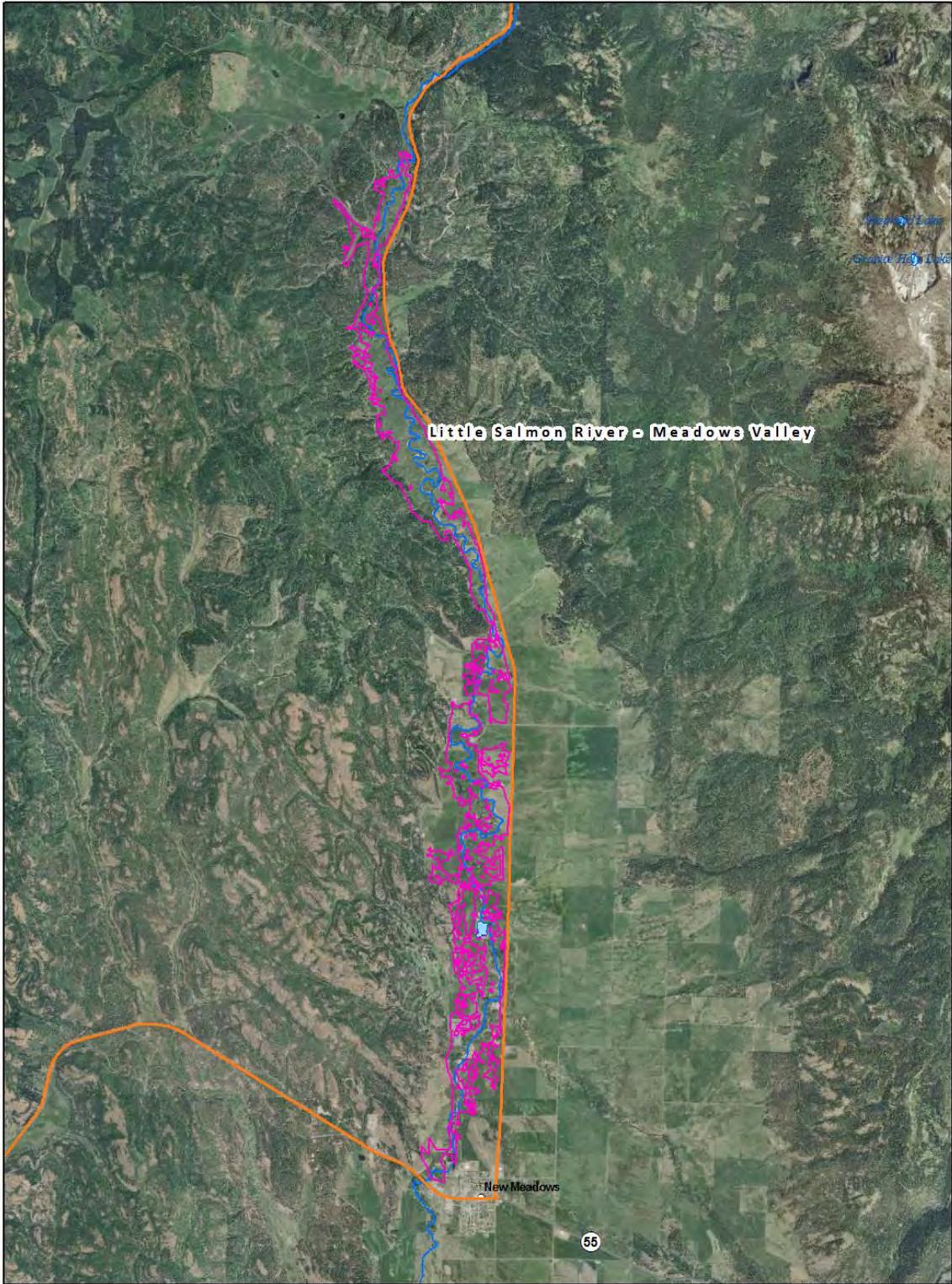
Gold Fork River - Kennally Creek - Little Valley — A meadow and shrub wetland complex occupies Little Valley at the confluence of Kennally Creek and the Gold Fork River. These sinuous streams meander through their valleys, depositing sand and gravel bars in slow moving areas. Willows colonize many of these bars, as well as stream banks and seasonally flooded ground south of the Gold Fork River. Wet meadows of sedge and Baltic rush typify much of the wettest valley bottoms, including meander scars of the streams. Mesic meadows that dry by early summer also occur. Lodgepole pine is common at the edges of meadows and willow bottoms. Most of the site is a cattle ranch. Water has been diverted to irrigate hayfields and cattle pasture. Opportunities for restoration exist.

Long Valley (Cascade to Cabarton) — This area includes a mosaic of wet meadows, moist pasture, and riparian woodland and shrubland in the valley of the North Fork Payette River near the southern tip of Cascade Reservoir. Forested wetlands include stands of lodgepole pine. Scrub-shrub wetlands dominated by Geyer's willow are common. Large areas of wet meadows are present and characterized by stands of few-flowered spikerush, beaked sedge, aquatic sedge, Nebraska sedge, tufted hairgrass, and smallwing sedge, on a wet to dry gradient. Non-native species, such as reed canarygrass, smooth brome, and meadow foxtail, are widespread in pastures. There is habitat for the federally Threatened northern Idaho ground squirrel.

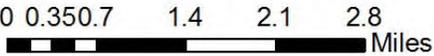


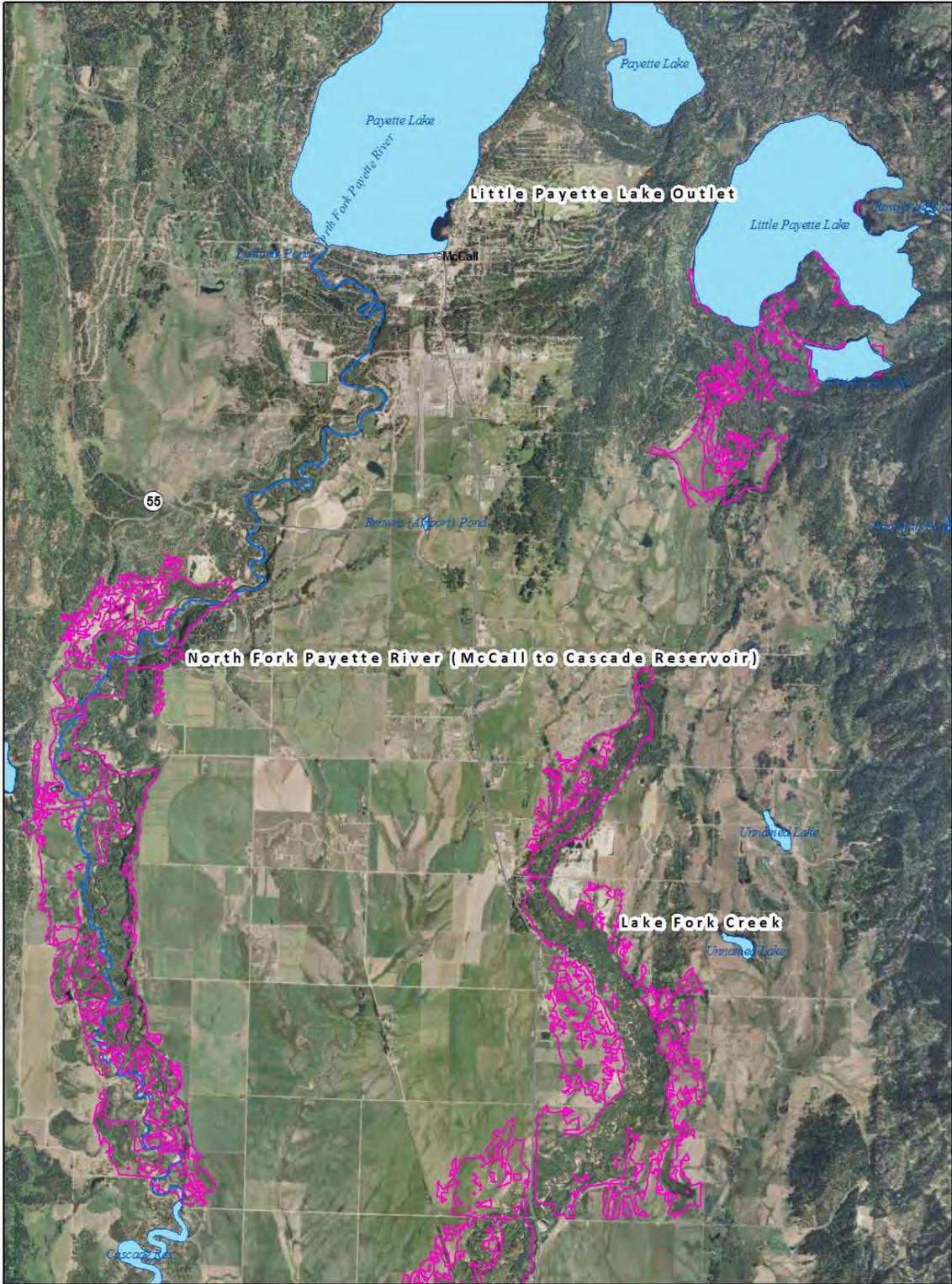
Tufted hairgrass wet meadow at southern end of Cascade Reservoir. Photo by M. Jankovsky-Jones.

Little Squaw Creek - High Valley — High Valley supports an extensive wet and mesic meadow complex. Little Squaw Creek and its tributaries are low-gradient, highly sinuous streams that feed these meadows during snowmelt runoff. The wettest sedge meadows align with the floodplains of these streams. Small, marshy areas occupy saturated depressions. Drier, ephemeral moist meadows occupy higher ground. Shrublands dominated by Booth's and Geyer's willows are also present. Many of the meadows are utilized as livestock grazing pasture. There are about 10 small reservoirs within the site, as well as rural housing. Restoration opportunities are present.

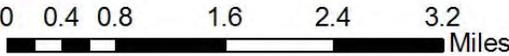


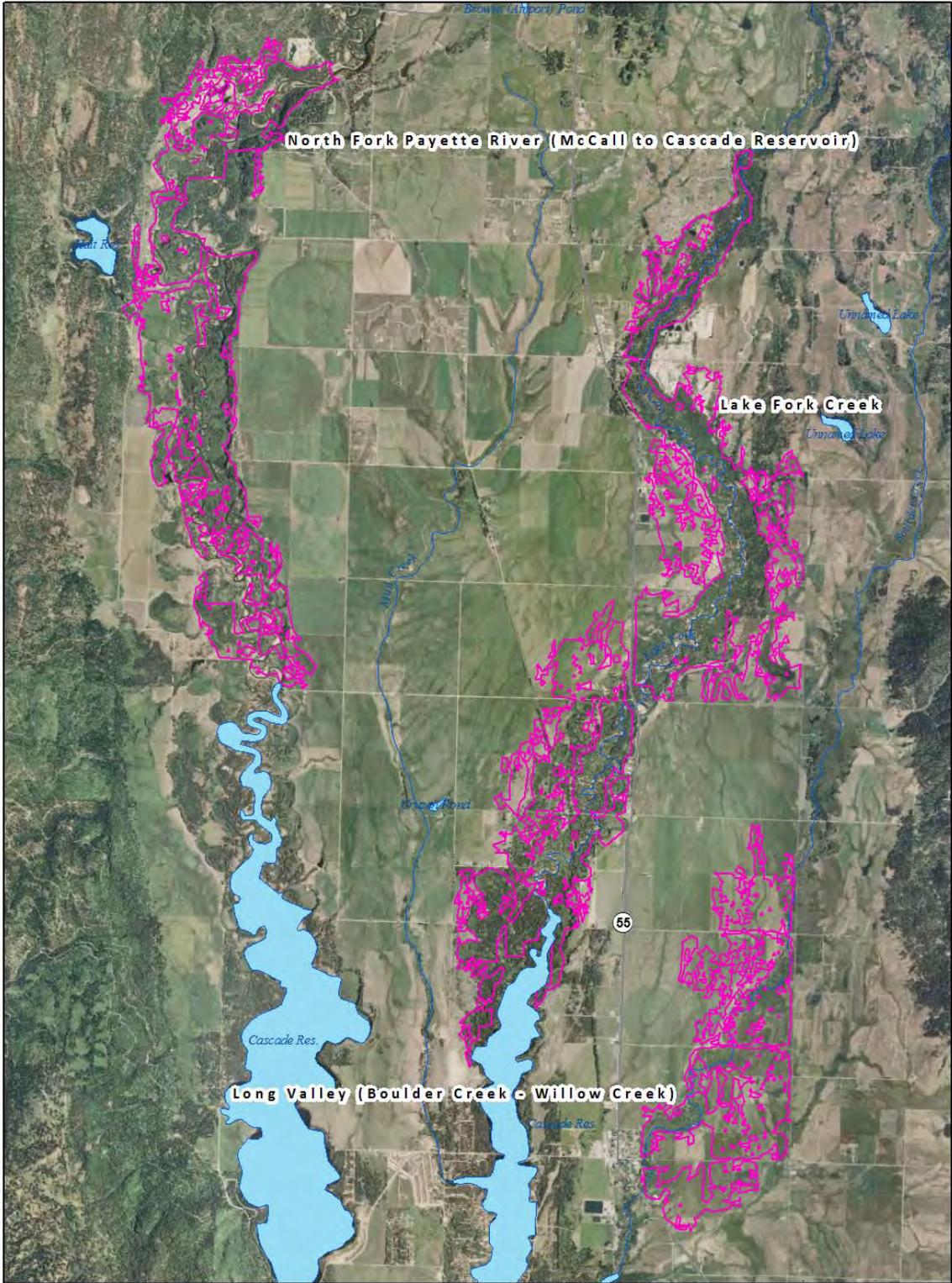
Priority Wetland Sites



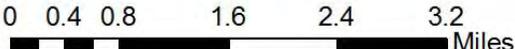


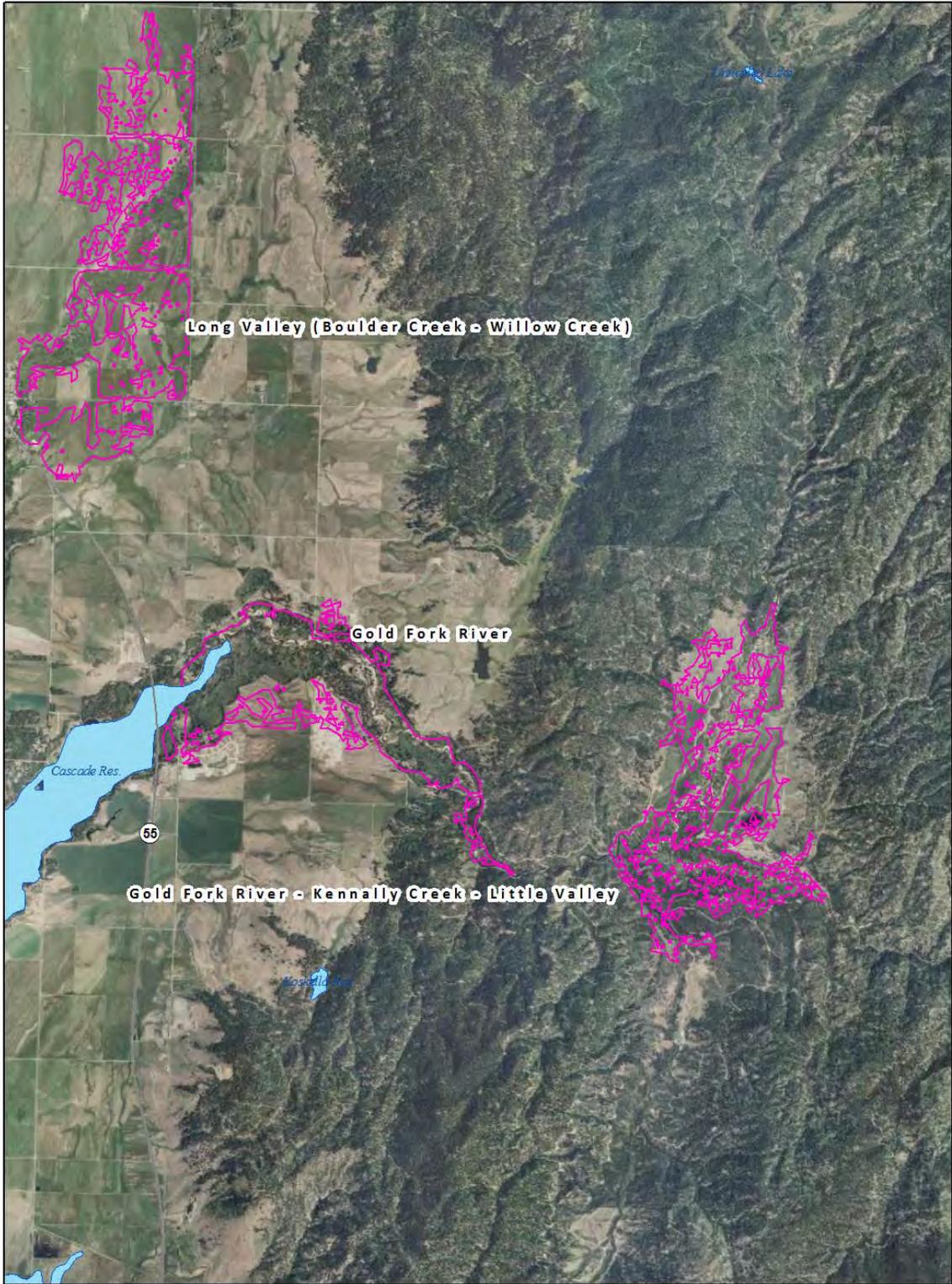
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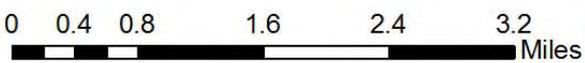


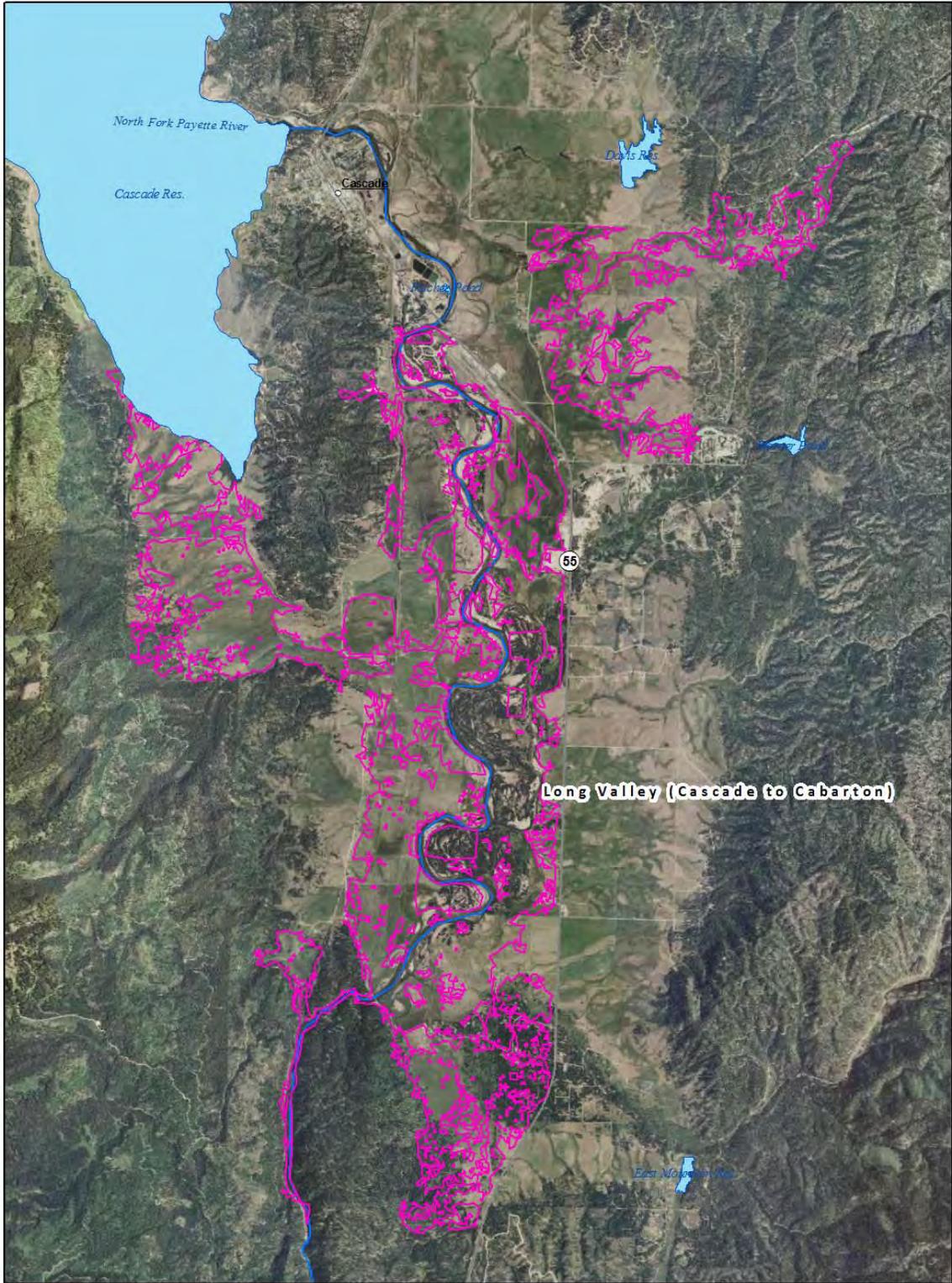
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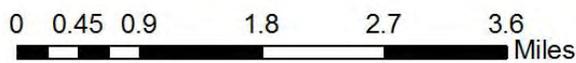


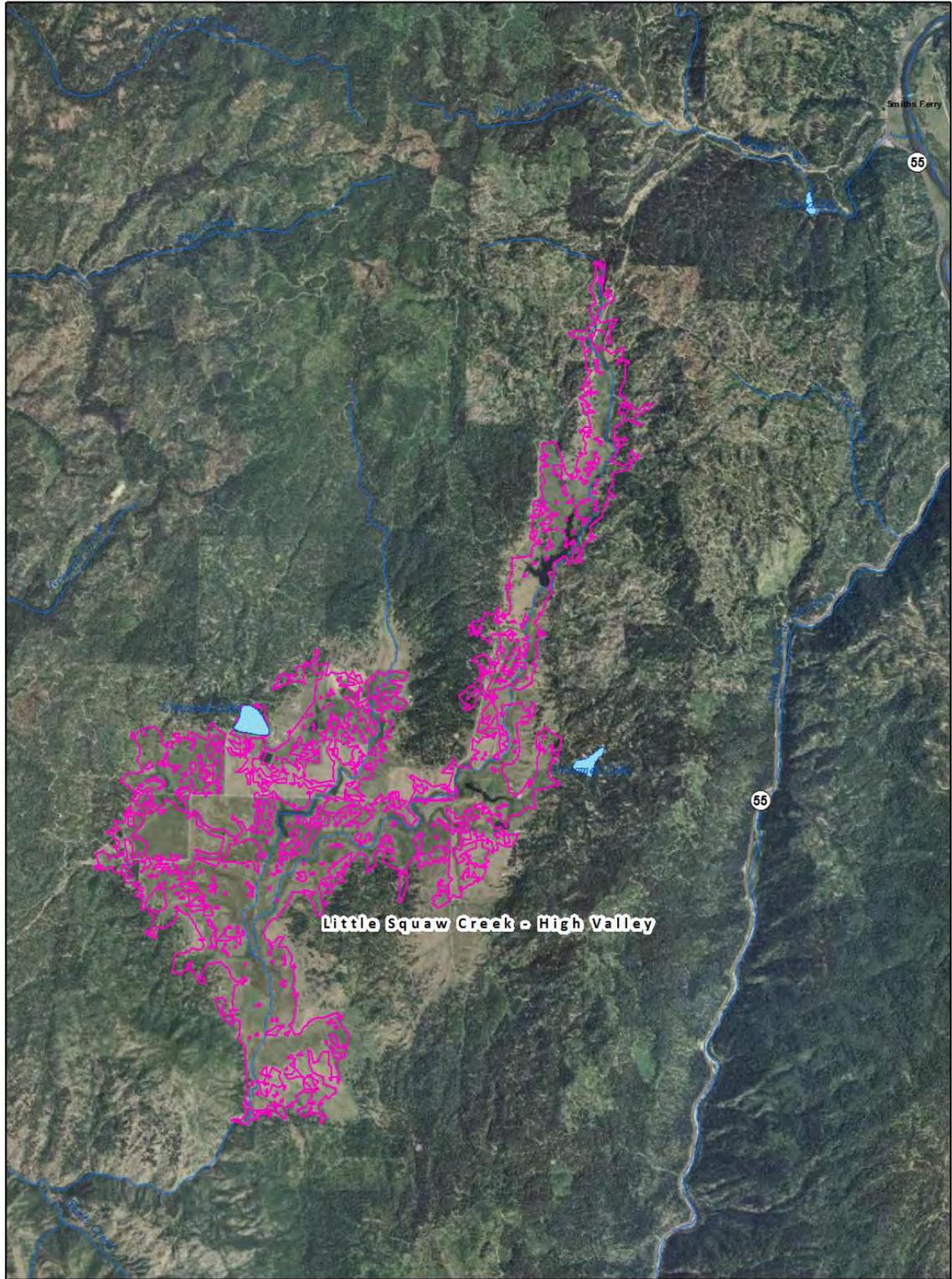
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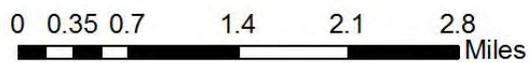


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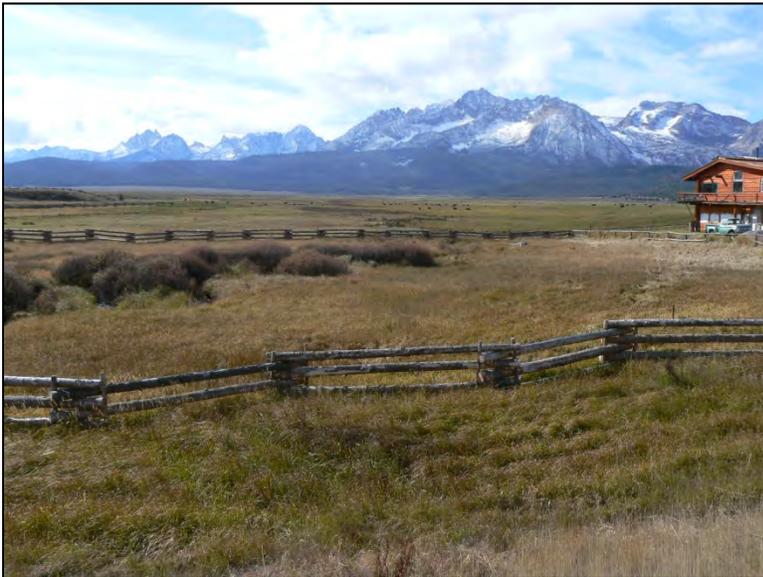
Priority Wetland Sites



Central Idaho Sites

Valley Creek (upstream of Stanley Lake Creek) — Mesic and wet meadows dominated by sedges, Baltic rush, and various grasses (e.g., bluejoint, tufted hairgrass, Kentucky bluegrass, intermediate oatgrass) and shrubby cinquefoil occur in the wide valley of Valley Creek. Wetter areas support vast beaked sedge meadows. Tall willows (e.g., Drummond's and Lemmon's willows) and bog birch line Valley Creek and many portions of its floodplain. Patches of short-height willows (e.g., Wolf's willow) are commonly intermingled in the meadows. Lodgepole pine and sagebrush characterize drier soils. Meadows are primarily used for cattle grazing and hydrology has been altered to enhance forage production in some areas. Valley Creek is habitat for federally Threatened bull trout, Chinook salmon, and steelhead populations. It is also popular for fly fishing.

Stanley Basin — Stanley Basin is characterized by an extensive wet and mesic meadow complex at the foot of the scenic Sawtooth Range. Meadows are both natural, fed by several large creeks draining the Sawtooths and springs, and irrigation enhanced. The meadows support beaked sedge and Nebraska sedge in seasonally flooded or saturated areas, tufted hairgrass or seeded grasses in slightly drier sites, and intermediate oatgrass on mesic, or ephemeral moist, ground. Willows are abundant in portions of the basin, often intermixed with bog birch, especially on stream banks and near the foot of the mountains. Lodgepole pine occurs on slightly drier soil near the the mountain foothills. Pockets of peat occur around springs. Cattle ranching is the dominant land use in these meadows. Iron, Goat, and Meadow Creeks support federally Threatened bull trout, Chinook salmon, and steelhead populations.



Wet meadow and riparian shubland in Stanley Basin. Photo by C. Murphy.

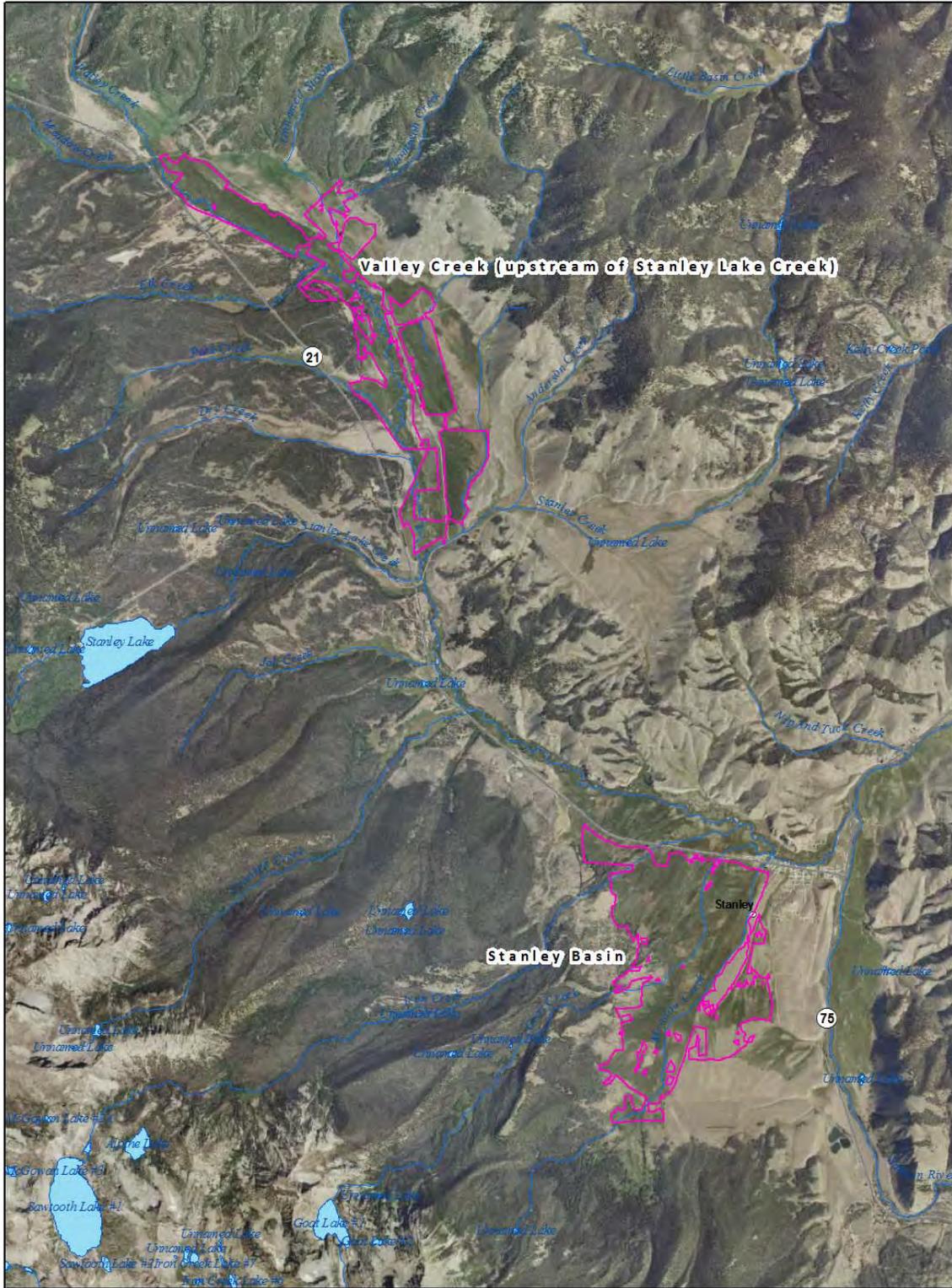
South Fork Boise River (Featherville to Paradise Hot Springs) — The section of the South Fork of the Boise River upstream of Anderson Ranch Reservoir has a wide floodplain with naturally functioning hydrology. The river is dynamic, forming large cobble bars as it swings back and forth across the valley bottom. These alluvial deposits are ideal substrates for black cottonwood and dusky willow establishment. Less frequently flooded river terraces are characterized by mature black cottonwood gallery forest. Rarely flooded valley bottom supports ponderosa pine forest. Large areas of the valley bottom support wet meadows and Booth's willow shrubland. There are geothermal springs that provide habitat for a globally rare plant species. The river has a bull trout population.

Camas Creek - Soldier Creek (Fairfield) — There is an extensive wet meadow and willow-dominated wetland complex at the confluence of Camas and Soldier Creeks. The site is located south of Fairfield on the Camas Prairie. Meadows range from those staying wet into the summer to ephemerally moist communities on the margins of the wetland. Soldier Creek is habitat for Wood River sculpin, a globally rare fish. Ephemeral meadows are habitat for rare plant species and unusual plant communities, including fields of camas that paint the wetlands blue in spring.

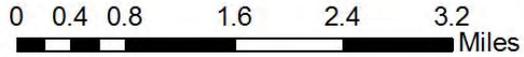


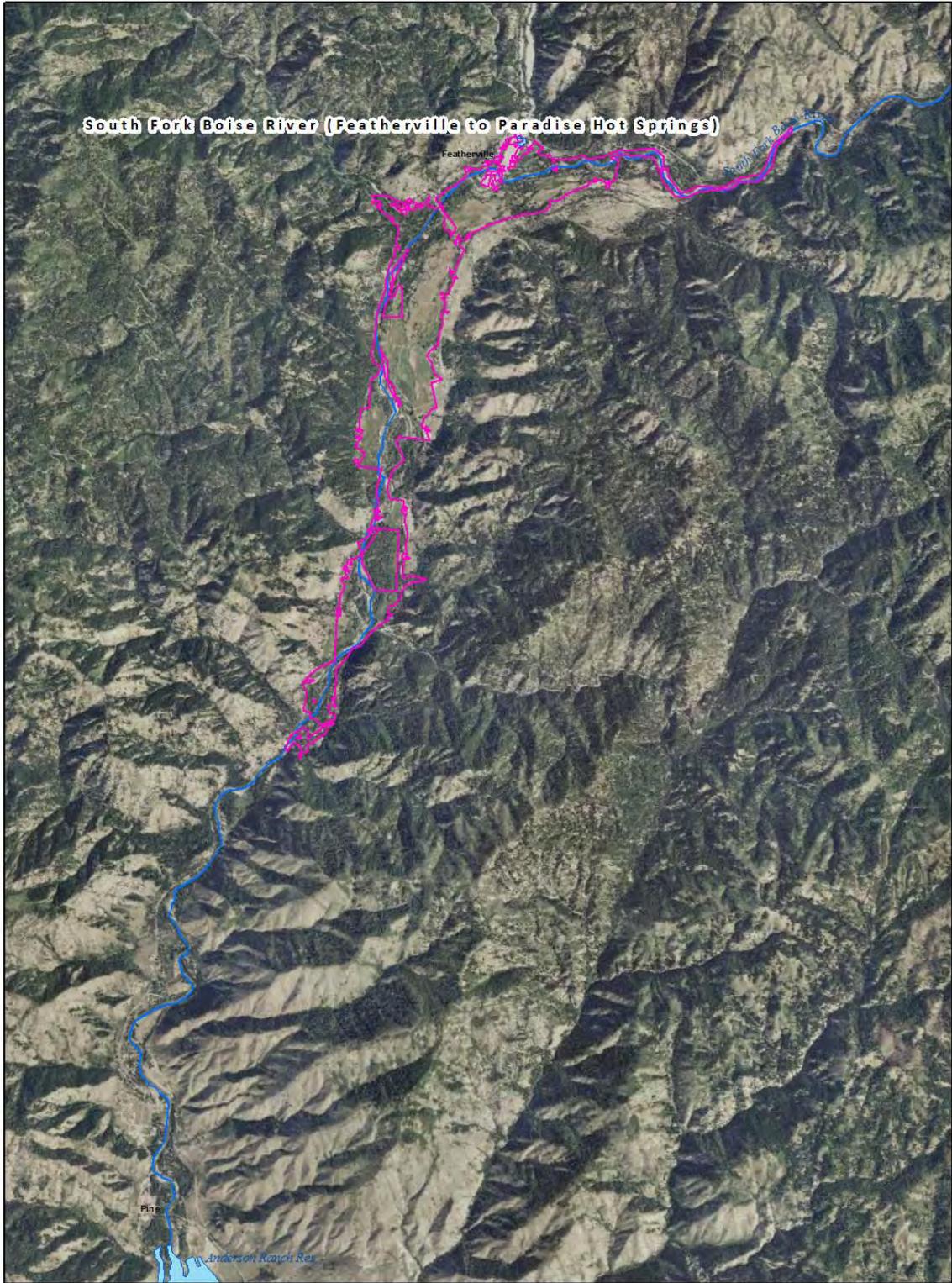
Camas Prairie wetlands during spring flooding. Photo by C. Murphy.

Big Wood River (Hailey to Bellevue) — The riparian woodland of the Big Wood River floodplain and associated mesic meadow wetlands characterize the site. Naturally functioning hydrology creates a flood and alluvial deposition regime suitable for black cottonwood stand development. Mature black cottonwood gallery forest fills much of the valley. Willows are also abundant, both on frequently flood-disturbed cobble or sand bars and on stable, groundwater-influenced sites. Groundwater fills small ponds in the spring. Beaver are present. The Big Wood River provides habitat for endemic and rare fishes, including bridgelip sucker and Wood River sculpin. It is highly valued for its trout fishery.

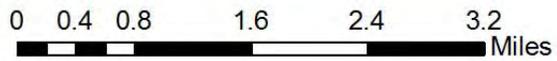


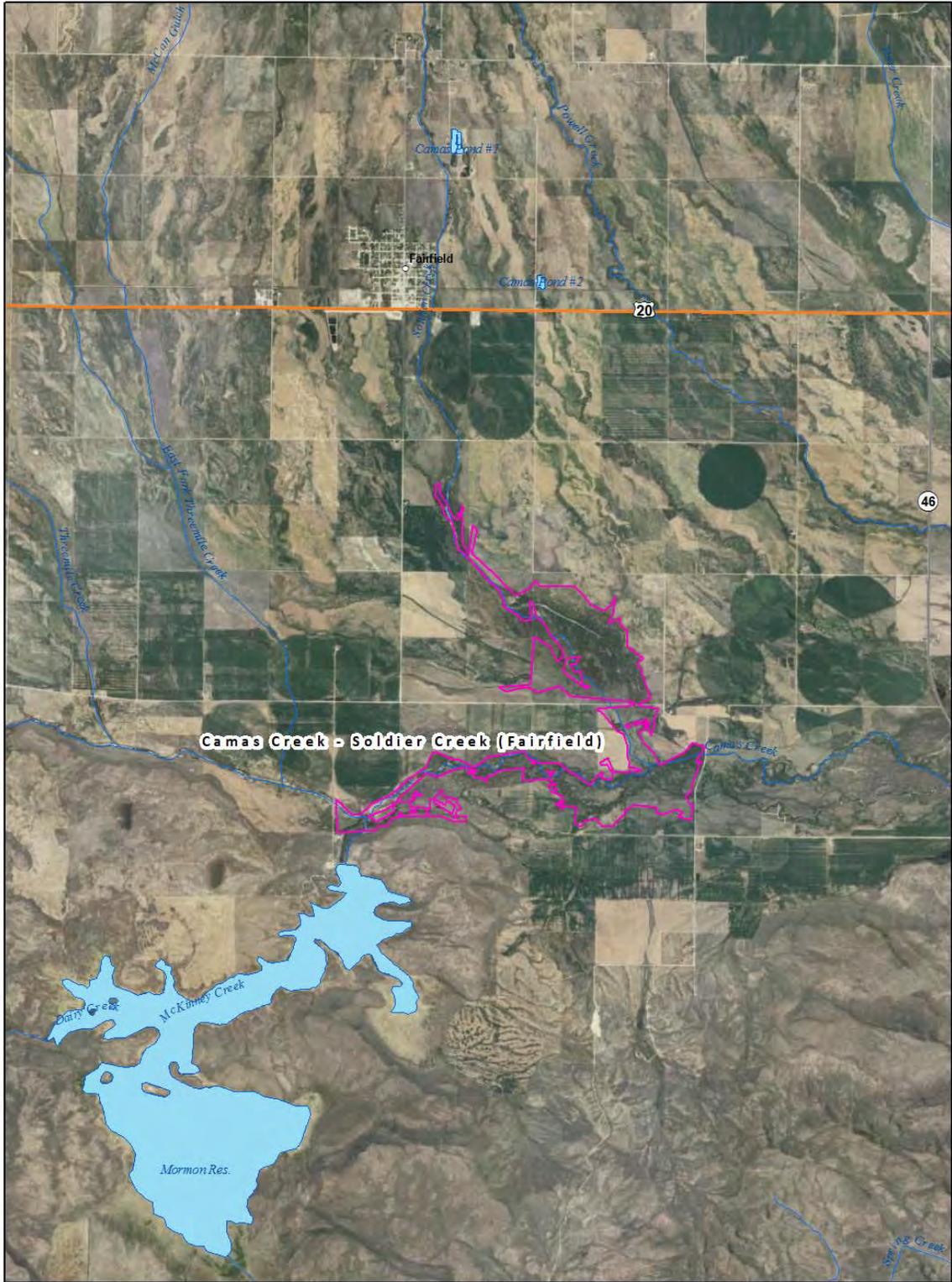
Priority Wetland Sites



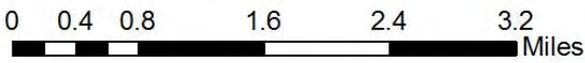


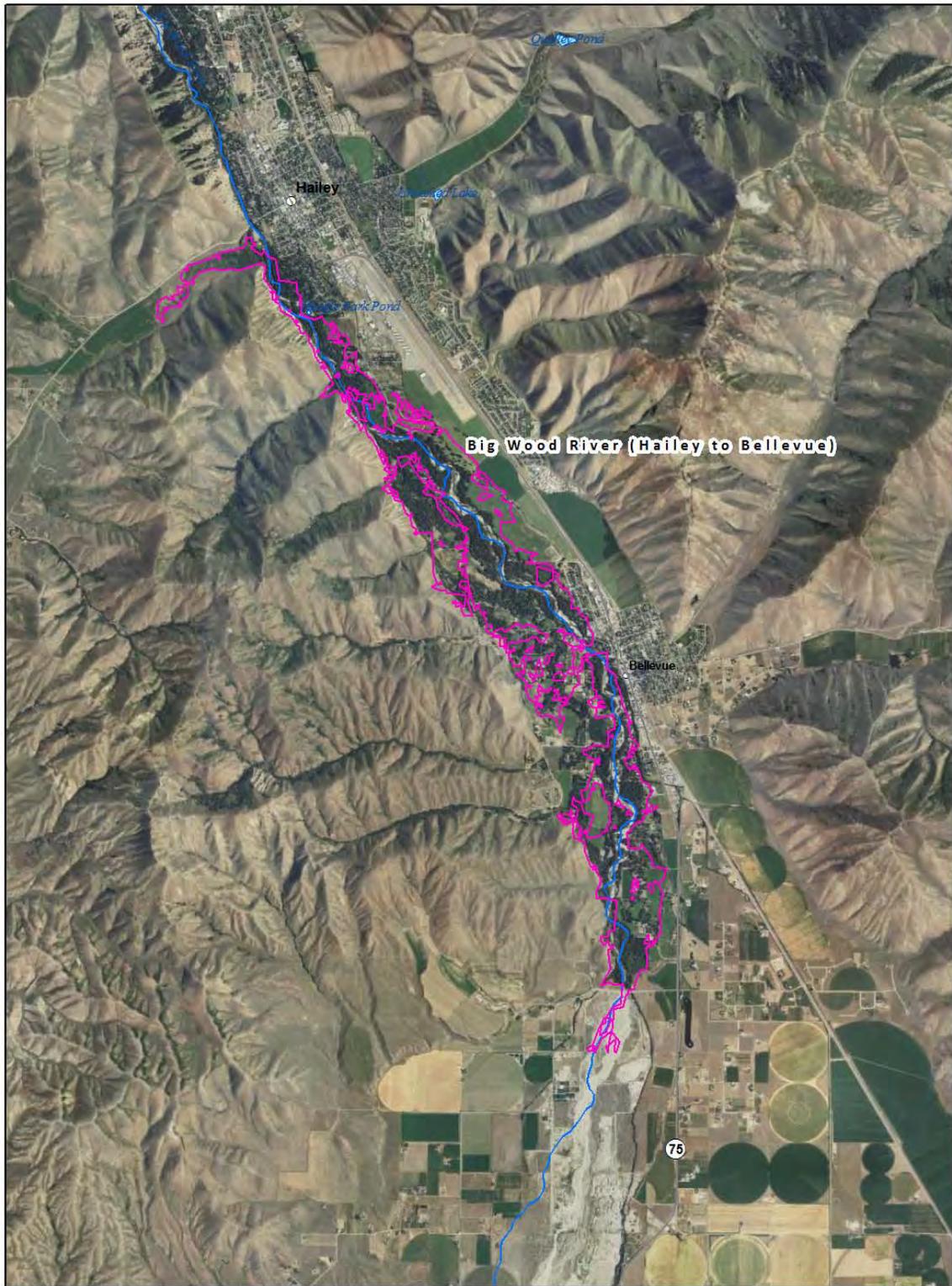
 **Priority Wetland Sites**





Priority Wetland Sites





 **Priority Wetland Sites**

0 0.4 0.8 1.6 2.4 3.2 Miles



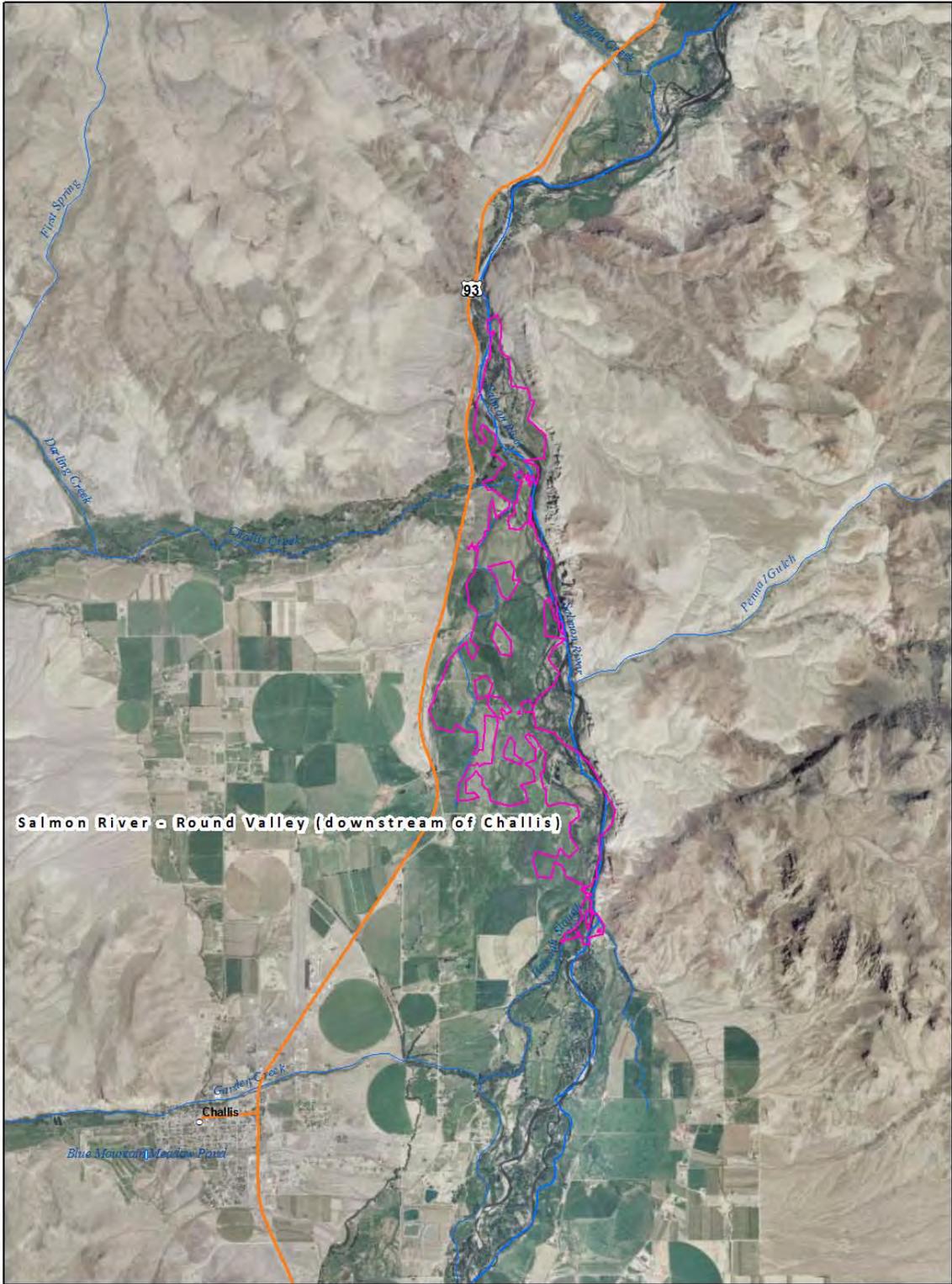
East-central Idaho Sites

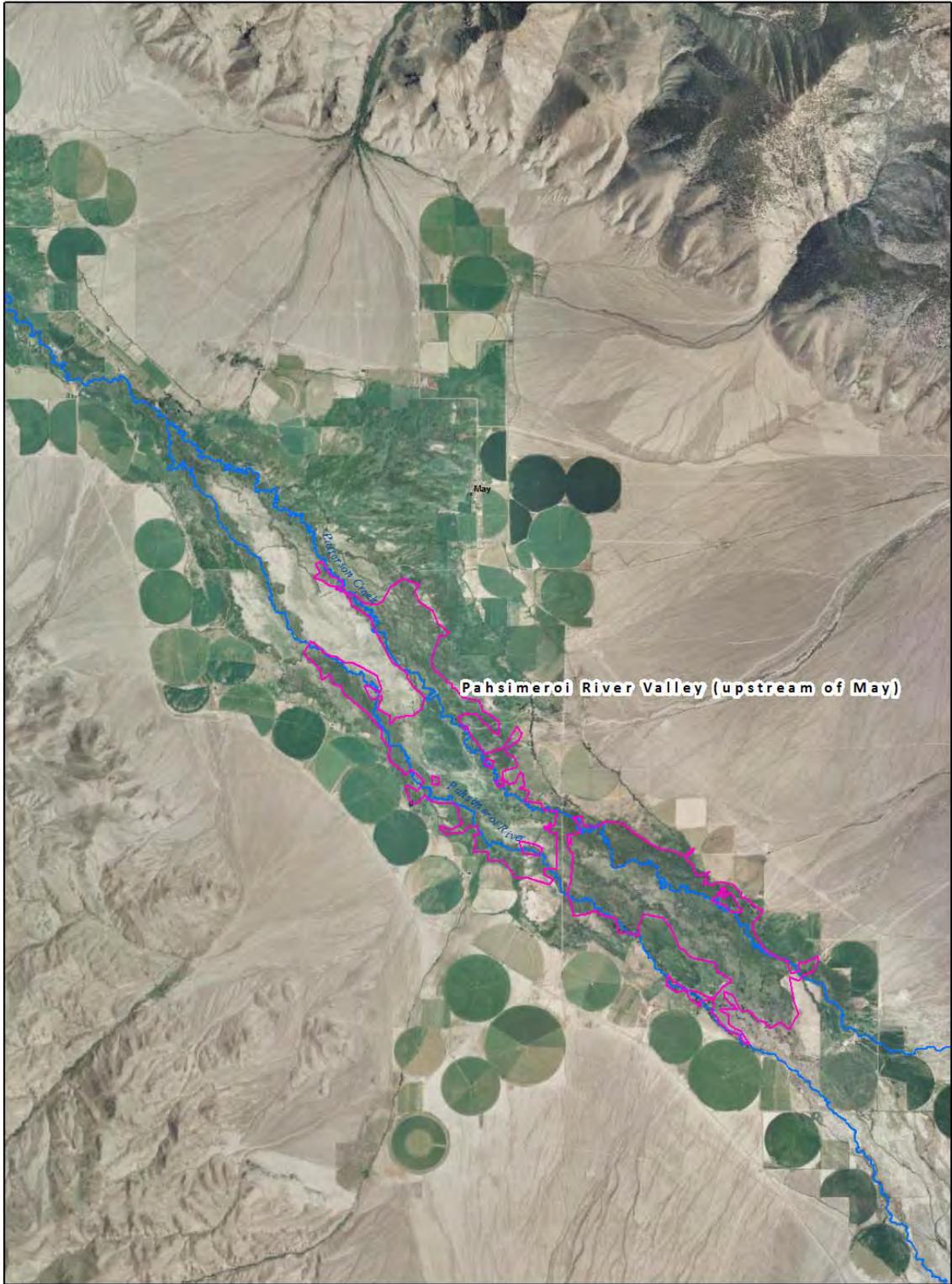
Salmon River - Round Valley (downstream of Challis) — This site includes wetlands associated with alluvial terraces, oxbows, sloughs, swales, and islands along the Salmon River. It is located in the broad, scenic high-desert valley downstream of Challis. A mosaic of black cottonwood gallery forest and riparian shrubland dominated by willow, mountain alder, and water birch characterize the floodplain. Extensive areas of wet meadow occur in the valley. Marsh species occur in sloughs and side channels. Floodplain processes are mostly natural and functioning, but restoration is possible where disrupted. The Salmon River provides critical habitat for wild steelhead, Chinook salmon, and sockeye salmon. Numerous wildlife species use the river bottom. Yellow-billed cuckoo have been observed. The river provides habitat for rare snails and mussels.

Pahsimeroi River Valley (upstream of May) — This site lies in the broad basin bordered on by the scenic peaks of the Lemhi and Lost River Ranges. The Pahsimeroi River meanders through shrub, grasslands, and pastureland providing a ribbon of riparian and wetland habitat in an otherwise treeless valley floor. Riparian shrublands are dominated by willows and water birch. Extensive wet meadows support sedge communities, while marsh patches are cattail dominated. Shrubby cinquefoil or grassy meadows characterize alkaline wetlands that are maintained by groundwater seeps and springs. The river and its riparian areas provide critical habitat for several naturally spawning special status fish species. Alkaline wetlands provide habitat for globally rare plant species.

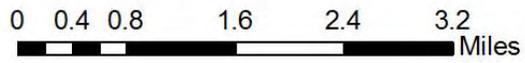
Eighteenmile Creek (Lemhi Valley) — This site includes wet meadows and alkaline wetlands along lower Eighteenmile Creek, a tributary to the Lemhi River emanating from the Beaverhead Mountains. Saturated areas support sedges while drier meadows are dominated by tufted hairgrass, Baltic rush, or hay grasses. Shrubby cinquefoil and grasses typical of alkaline soils (e.g., alkali cordgrass, mat muhly, inland saltgrass, Parry's sedge) are associated with alkaline spring-fed systems. Globally rare plant species occur in these habitats.

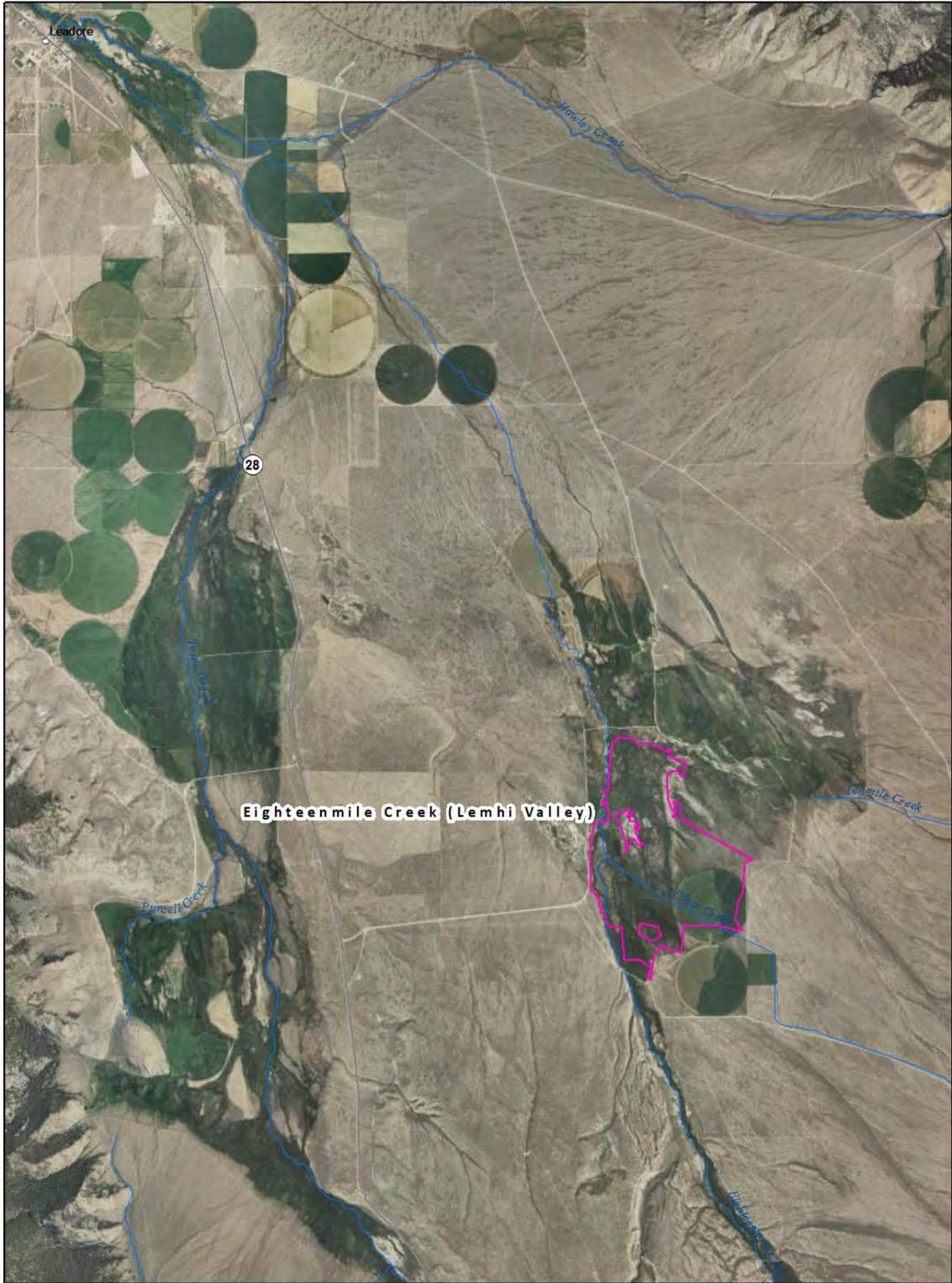
Thousand Springs Valley - Chilly Slough — Chilly Slough is a large, spring-fed, meadow - marsh - stream complex located in a broad valley at the foot of the Lost River Range. Numerous springs join to form Thousand Springs Creek as it flows south from its headwaters to join the Big Lost River. Surface and groundwater support a wide area of wetland habitats. Standing water supports cattail and hardstem bulrush marsh. Aquatic species occupy the clear, slow-moving waters of Chilly Slough. Wet meadows are a mosaic of beaked sedge, aquatic sedge, and Baltic rush. Alkaline wetlands occur on benches above the main wetlands. Alkaline wetlands commonly have hummocky topography and are dominated by greasewood, basin wildrye, alkali bluegrass, and alkali cordgrass. Globally rare plants are present. A productive rainbow trout fishery is present. There is a high concentration of waterbird species.



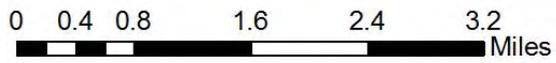


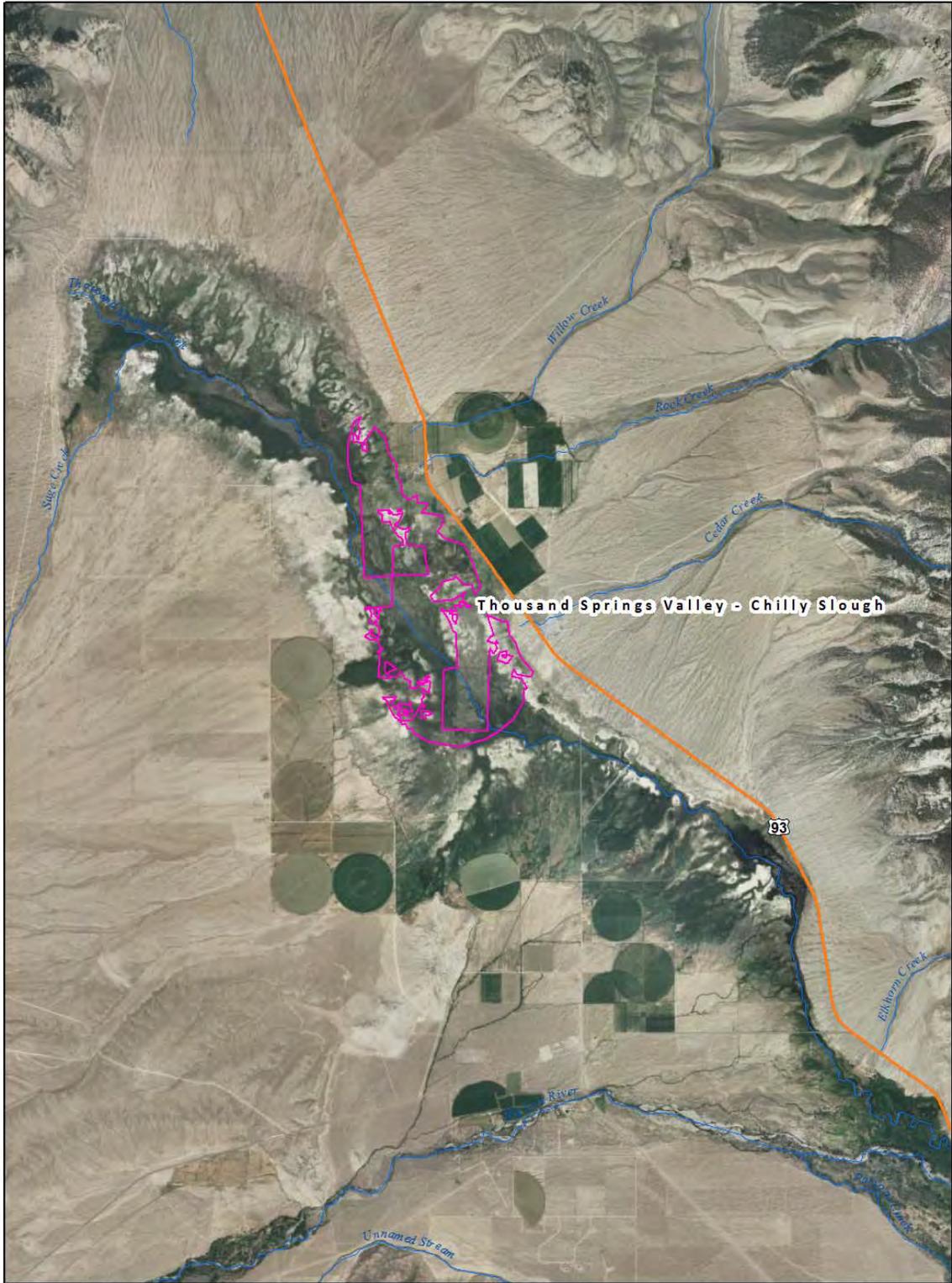
 **Priority Wetland Sites**



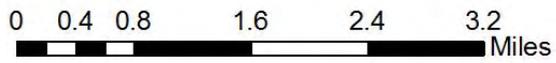


 **Priority Wetland Sites**





 **Priority Wetland Sites**



Eastern Idaho Sites

Henrys Lake — Extensive wetland complexes occur along the north, east, and southwest shores of Henrys Lake. Shrublands dominated Geyer's, Booth's, and diamondleaf willows are present along streams entering the valley from adjacent mountains. Short willow (e.g., Wolf's and shortfruit willow) communities are common and often associated analogue sedge where fed by springs. White spruce swamps occur on the northeast shore. Broad wet meadows also occur in this scenic area. The area is highly valued for recreation. Five rare plant species are known. The site is habitat for waterfowl and shorebird species, including wintering trumpeter swans.

Henrys Fork - Flat Ranch — Flat Ranch lies within Henrys Lake Flat, a large wet meadow on alluvial sediments with springs, seeps, and creeks that contribute to the flow of the Henrys Fork River. The site is a mosaic of different meadow types, ranging from beaked sedge, common spikerush, and analogue sedge in wet depressions to tufted hairgrass on slightly drier soil. Booth's willow communities occur on stream banks and seasonally flooded flats. Silver sagebrush occurs on margins. The site supports trumpeter swans. It is a popular fishing area.

Henrys Fork (Teton River to Snake River) — The Henrys Fork River corridor is dominated by cottonwood gallery forest (narrowleaf near the Snake River, black upstream) with a dense shrubby understory of redosier dogwood, willows, and water birch. The lower Henrys Fork is large river system with a dynamic floodplain that moves much sediment. There is a mosaic of riparian and wetland habitats, from forests and shrublands to wet meadows and marshes, occupying islands, sloughs, and oxbows along the river. The main Snake River and the Henrys Fork are significant resting areas for thousands of waterfowl and shorebirds during migration. The site is wintering habitat for trumpeter swans. Yellow-billed cuckoo have been observed. Habitat for globally rare snails and plants is present. The area has high recreation value.

Snake River (Roberts to Jefferson - Bonneville County line) — This site includes islands of the Snake River and an area of wide floodplain just downstream of Roberts. These habitats include scattered ponds in old oxbows and marshy depressional wetlands in meander scars and sloughs. Scattered cottonwood trees, Russian olive, and willows are present. Although surrounded by agriculture, this section of the Snake River is valuable because it has a high concentration of bird species, including wintering trumpeter swans, and provides habitat for Yellowstone cutthroat trout and globally rare snail species.

Teton Basin — This extensive wetland complex occurs in the cold, high mountain basin between the Big Hole Range and the scenic Teton Mountains. Numerous mountain streams and spring-fed creeks emanating from the valley floor coalesce to form the headwaters of the Teton River. Among these spring-nourished habitats are large areas of peat soils (fen wetlands). Riparian and wetland communities along the Teton River and tributaries typically contain a mosaic of sedge, Baltic rush, and grassy meadows, shrubby cinquefoil, willow riparian

shrublands, and cottonwood and aspen forests. Agriculture and rural housing is common. Teton Basin supports habitat for trumpeter swans and globally rare snail species.



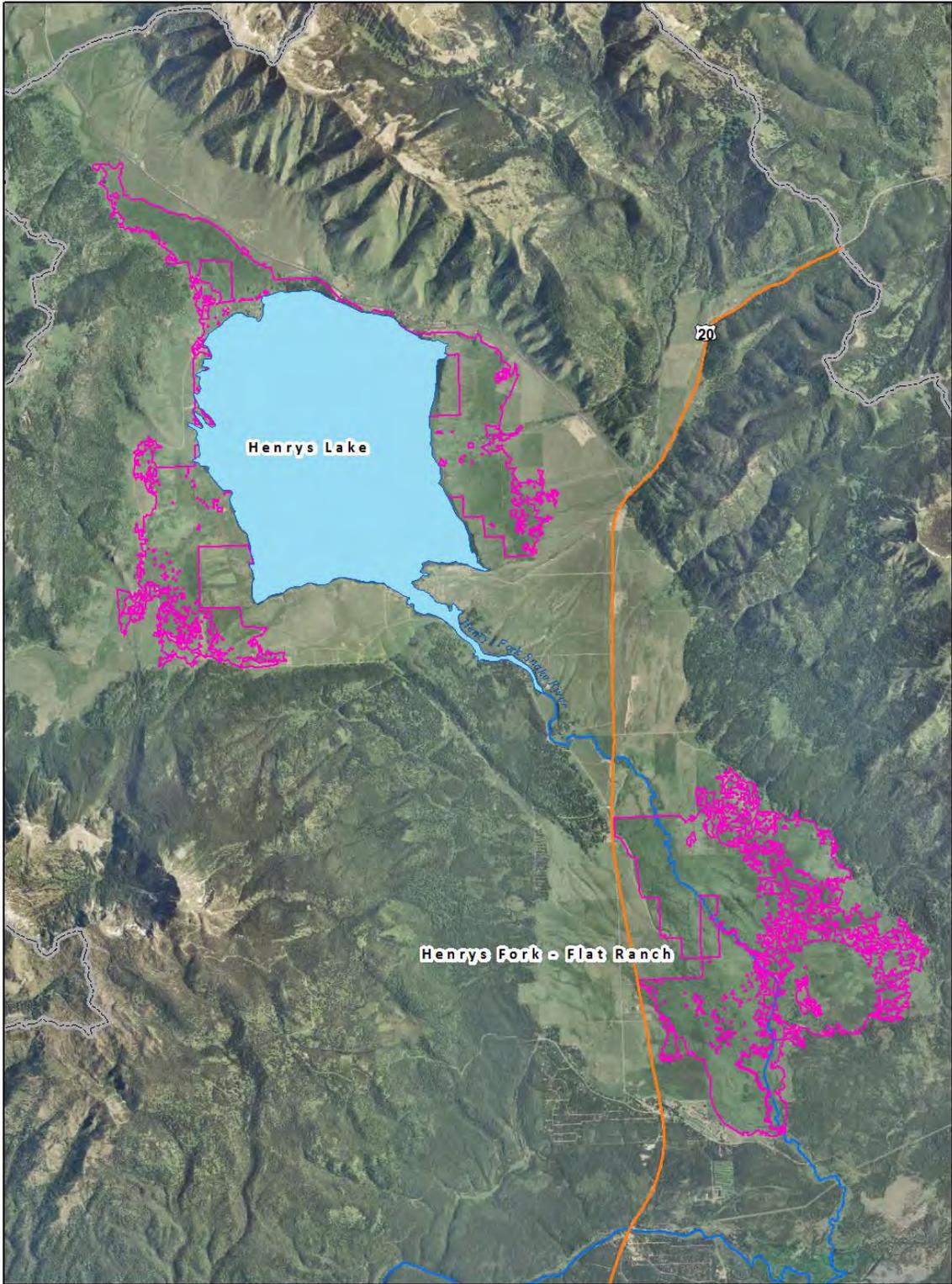
Teton Basin wetlands flooded by the Teton River during late spring. Photo by C. Murphy.

South Fork Snake River - Swan Valley — This site is comprised of the broad, dynamic South Fork Snake River floodplain from Palisades Dam through Swan Valley. It supports an extensive narrowleaf cottonwood gallery forest and riparian shrublands of silverberry, redosier dogwood, water birch, and willows on the many islands present. The site includes tributary stream riparian areas and valley bottom wet meadows. Besides having a world famous native Yellowstone cutthroat trout fishery, the site is valuable habitat for many bird species (including trumpeter swans) and a federally listed Threatened orchid species, Ute ladies'-tresses.

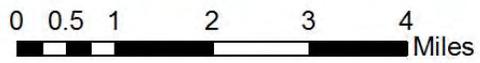
Snake River (Firth to Blackfoot) — This reach of the Snake River has a broad, active floodplain occupied by an extensive cottonwood gallery forest. Riparian shrubs fill gaps, creating a dense and productive habitat for common and rare bird species, such as yellow-billed cuckoo. The river provides habitat for Yellowstone cutthroat trout and globally rare snail species.

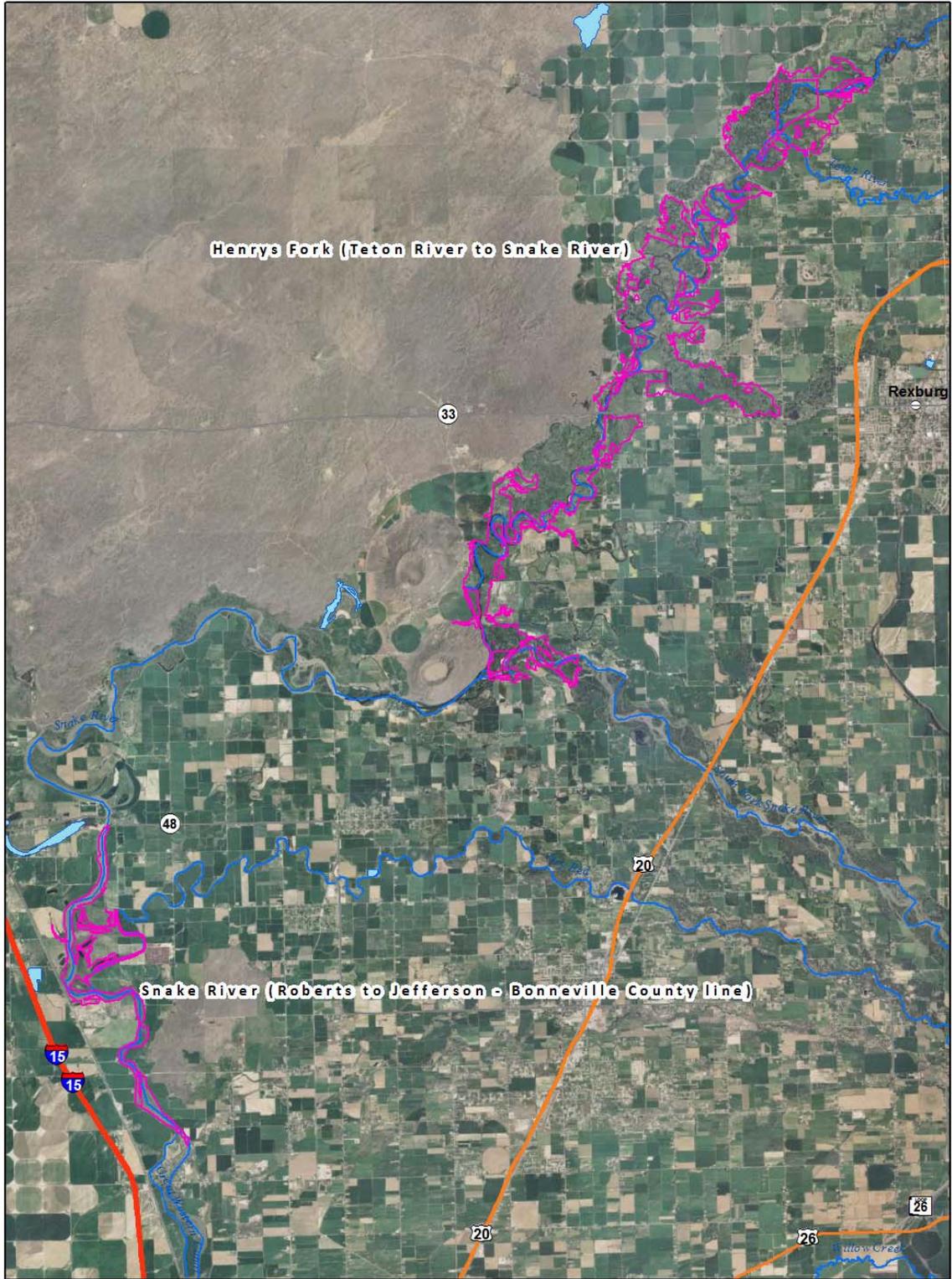
Blackfoot River - Blackfoot Equalizing Reservoir — A raised water table enhanced by a reservoir and irrigation water supports a large wetland complex along the Blackfoot River. The reservoir has an extensive marsh of cattail and hardstem bulrush in permanent to semi-permanently flooded areas. Most of the site occurs on very sandy soils, with dry dunes alternating with marshy swales. There are also large areas of Baltic rush wet meadow and alkaline wetlands with inland saltgrass. Russian olive and patches of coyote willow also occur.

American Falls Reservoir (Snake River to Sterling) — This site includes wetlands and low-lying areas stretching from where the Snake River enters American Falls Reservoir, west to IDFG's Sterling WMA. The delta of the Snake River includes cottonwood and willow riparian areas that provide habitat for colonial nesting birds. Wetlands influenced by groundwater and springs include marshes and meadows. Alkaline wetlands support a globally rare plant species. Russian olive woodlands are widely distributed. The reservoir and its mudflats provide habitat for shorebirds and waterbirds. Habitat for northern leopard frog, a rare species, is present.

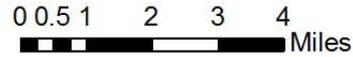


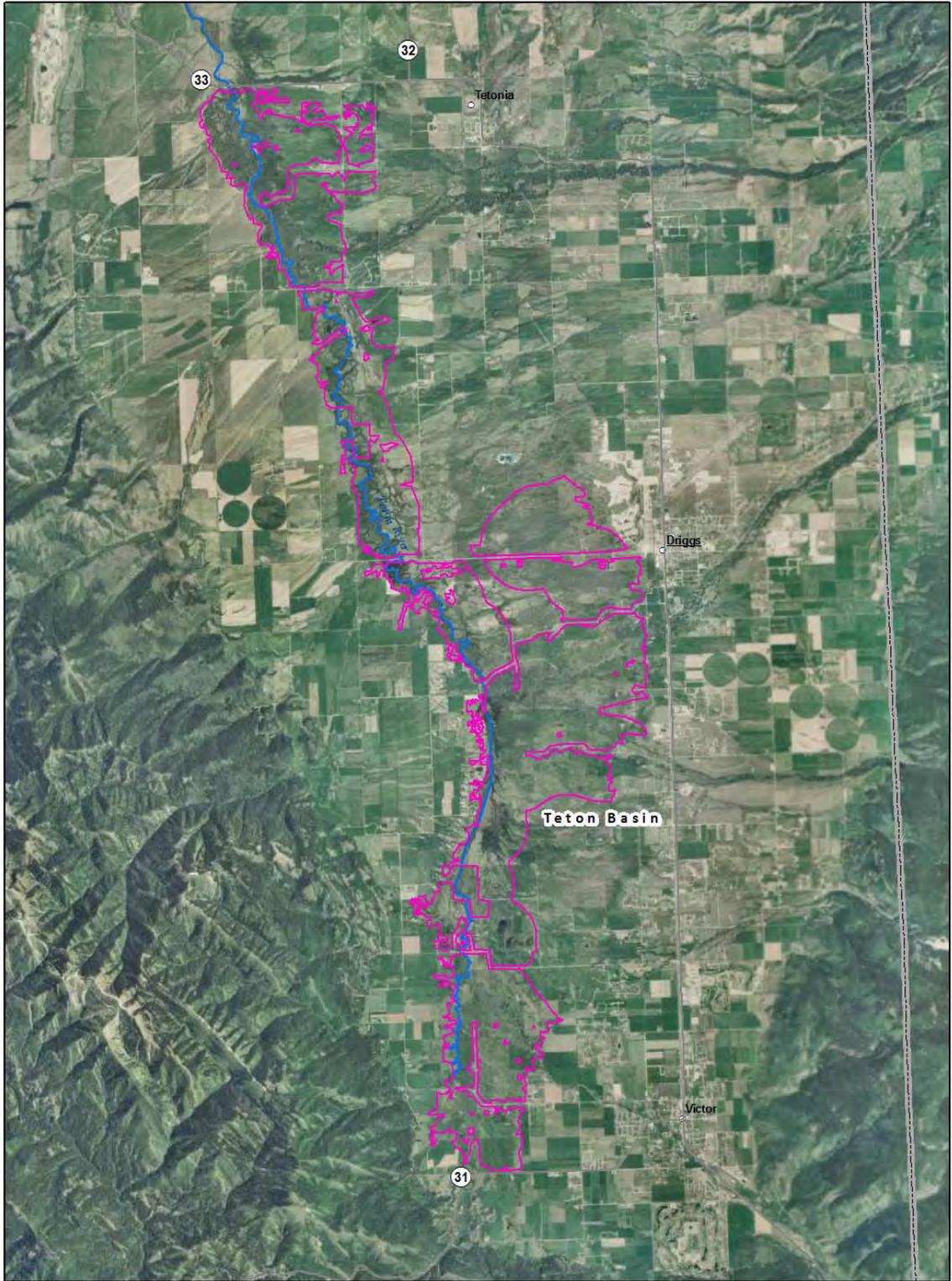
 **Priority Wetland Sites**



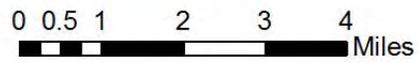


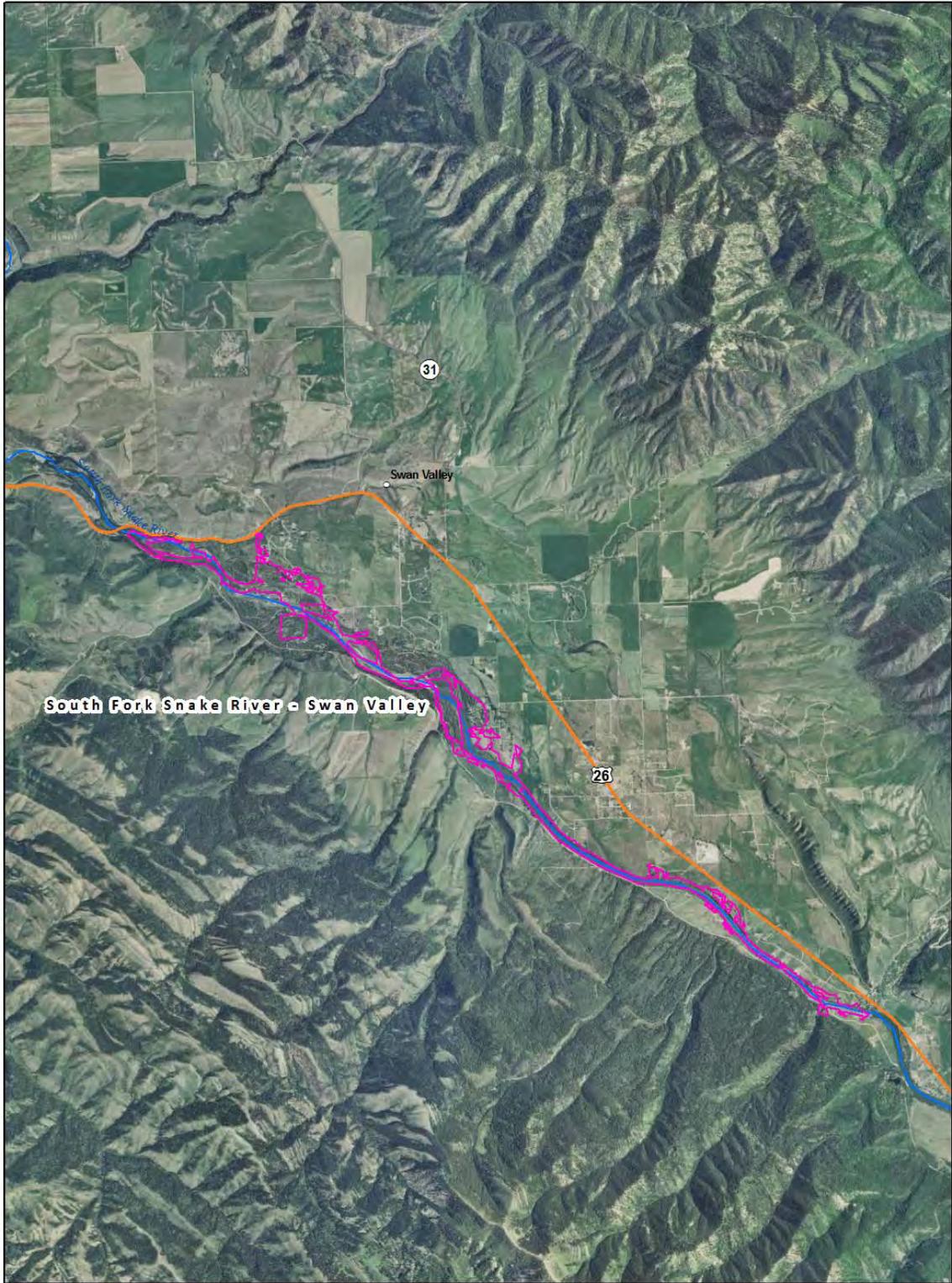
 **Priority Wetland Sites**



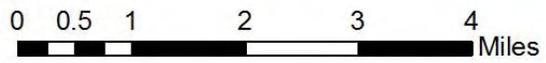


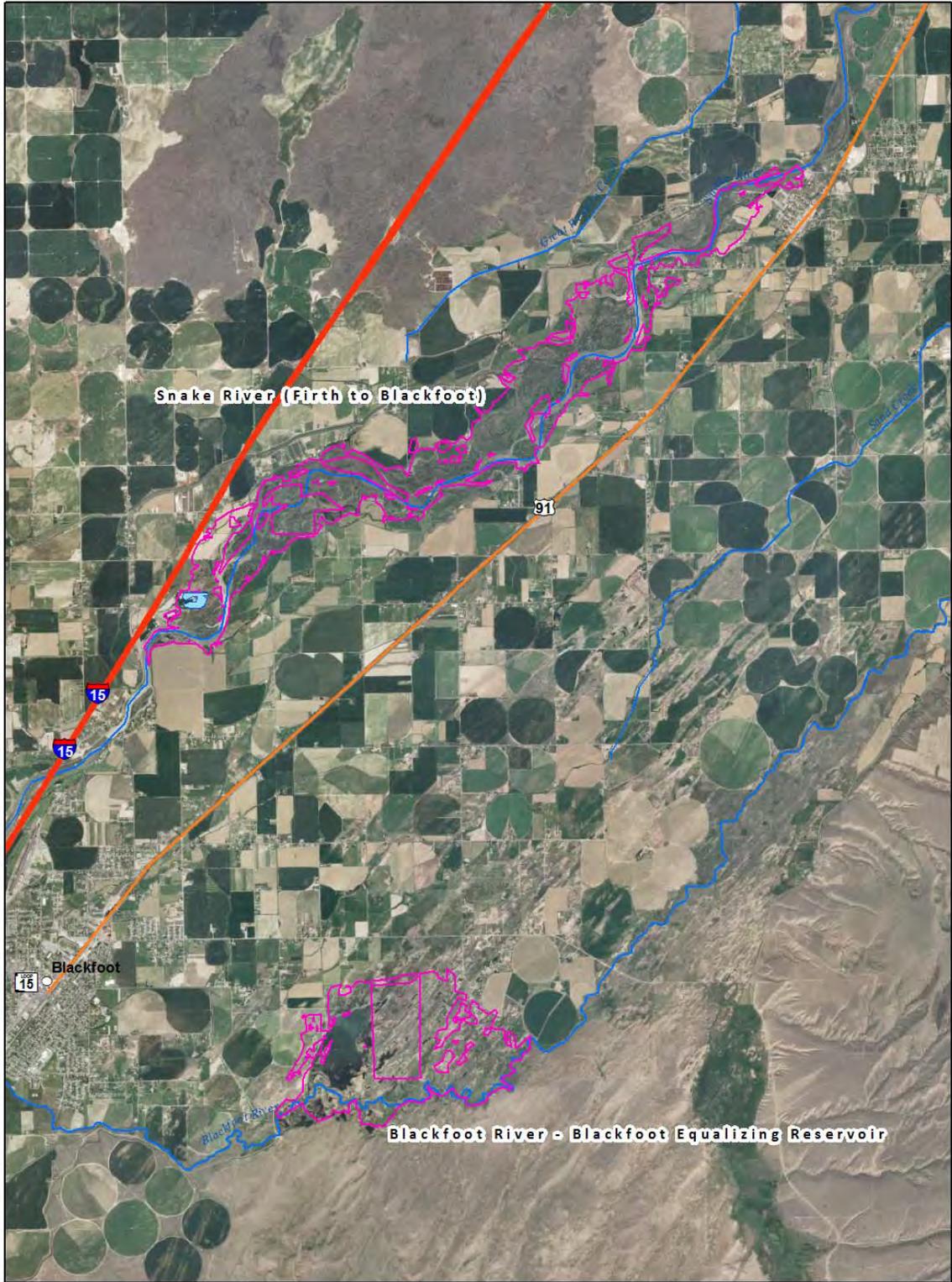
 **Priority Wetland Sites**



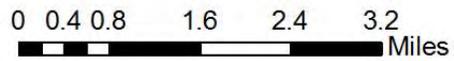


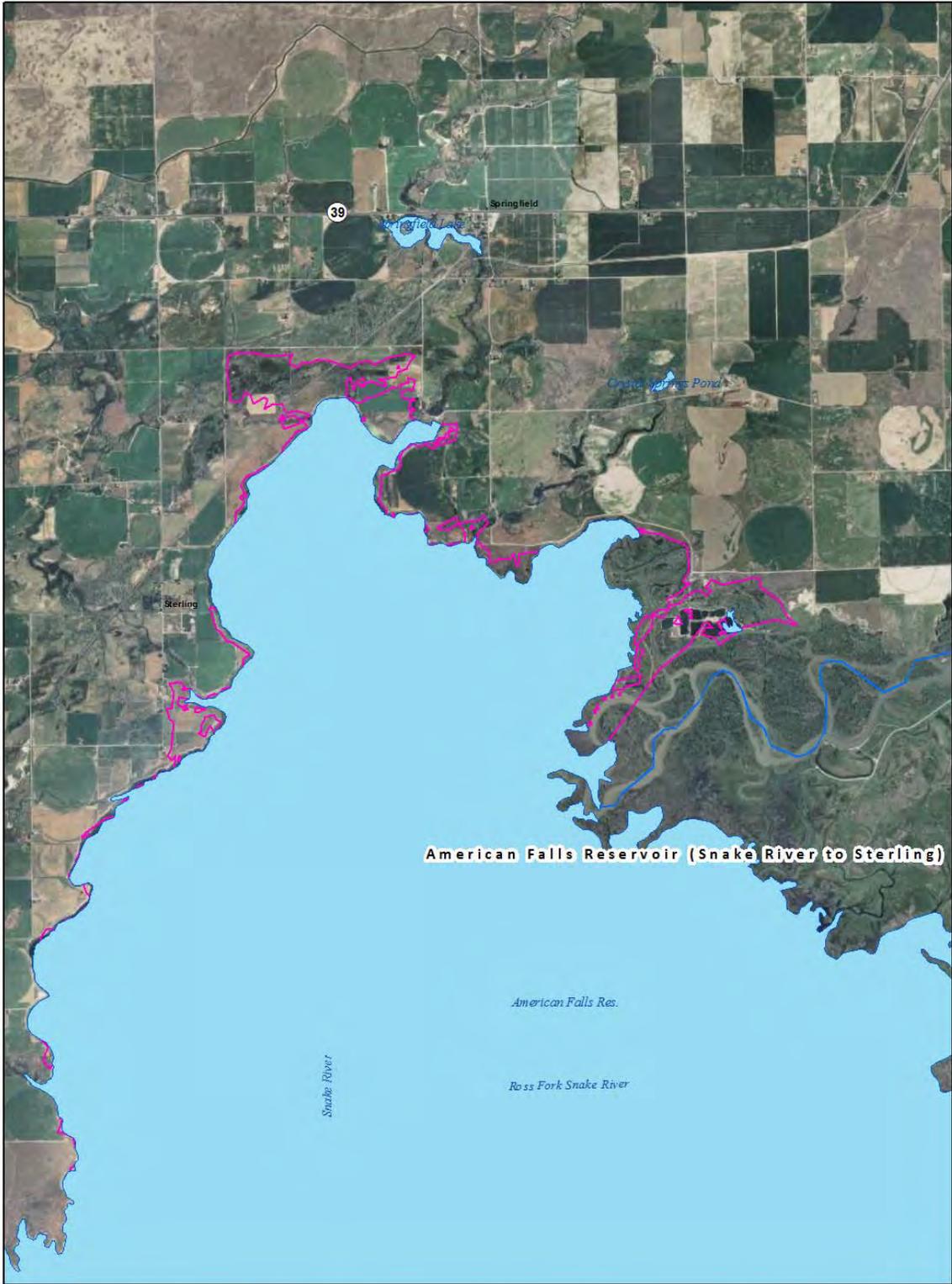
 **Priority Wetland Sites**





 **Priority Wetland Sites**





Priority Wetland Sites

0 0.4 0.8 1.6 2.4 3.2 Miles



Southwest Idaho Sites

Boise River (Caldwell to Notus) — Wetlands are associated with the Boise River floodplain, including its oxbows, sloughs, swales, and islands. The sandy banks and islands below the average high water line support unusual ephemeral plant species, some of which are rare in Idaho. The river valley contains numerous natural and human-made ponds and marshes supporting cattail, bulrush, and common reedgrass. Water levels are maintained by a network of ditches fed by irrigation return flow from surrounding agricultural lands. Ponds and riverine floodplains function to enhance water quality and provide valuable wildlife, waterfowl, and wading bird habitat. While much of the lower Boise River floodplain is dominated by non-native trees and shrubs, native black cottonwood trees also occur with willow, rose, and golden currant. Adjacent, alluvial valley bottom supports remnant alkaline wetland vegetation. The landscape is being rapidly urbanized and impacts related to flood control remain. In part due to urban development, the value of the floodplain as open space for natural floodplain processes, recreation, and wildlife habitat is increasing.

Snake River (Marsing to Homedale) — The banks and numerous islands of the Snake River characterize this site. These habitats support patchy alkaline wetland vegetation (e.g., greasewood and inland saltgrass), riparian coyote willow shrubland, and scattered native (e.g., peachleaf willow) and non-native trees (e.g., Russian olive, maples, box elders, ash). The river corridor is important habitat for numerous waterbird and colonial nesting bird species, including Canada geese, ducks, herons, shorebirds, gulls, cormorants, and songbirds. There is habitat for rare mollusks. High recreation opportunities exist. Portions of the site fall within the Deer Flat National Wildlife Refuge.

C. J. Strike Reservoir - Snake River — This site includes wetlands in the backwaters of C. J. Strike Reservoir where the Snake River enters. Habitat includes hardstem bulrush and cattail marsh, alkaline wetlands, and greasewood uplands. Riparian areas support willows and Russian olive. The variety of habitats found at C. J. Strike support a diversity of wildlife species. The site is a major waterfowl production and wintering area. There is a high concentration of waterbird species, including great egret nesting. Numerous songbirds, amphibian, and mammalian species utilize the marshes and riparian habitats. The site is very popular for fishing, hunting, and water sport recreation.

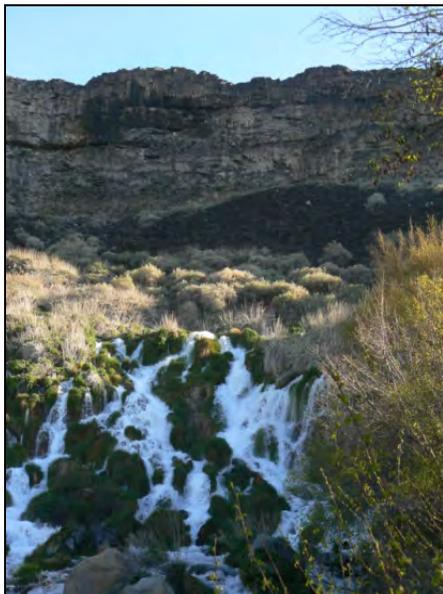
C. J. Strike Reservoir - Bruneau River — This site includes extensive wetlands in the backwaters of C. J. Strike Reservoir and valley of the Bruneau River. Habitat within this site consists of hardstem bulrush and cattail marsh, sedge and rush meadow, and alkaline wetlands. Riparian areas support forb and grass vegetation with an overstory of willows and Russian olive. The variety of habitats found at C. J. Strike support a diversity of wildlife species. The site is a major waterfowl production and wintering area (supporting 30,000 - 90,000 ducks). Songbirds, mammalian species (including beavers and minks), and northern leopard frog (a species of

conservation concern) inhabit riparian areas around ponds, rivers, and the reservoir. The site is very popular for fishing, hunting, and water sport recreation. Geothermal springs are present in the Bruneau River valley.

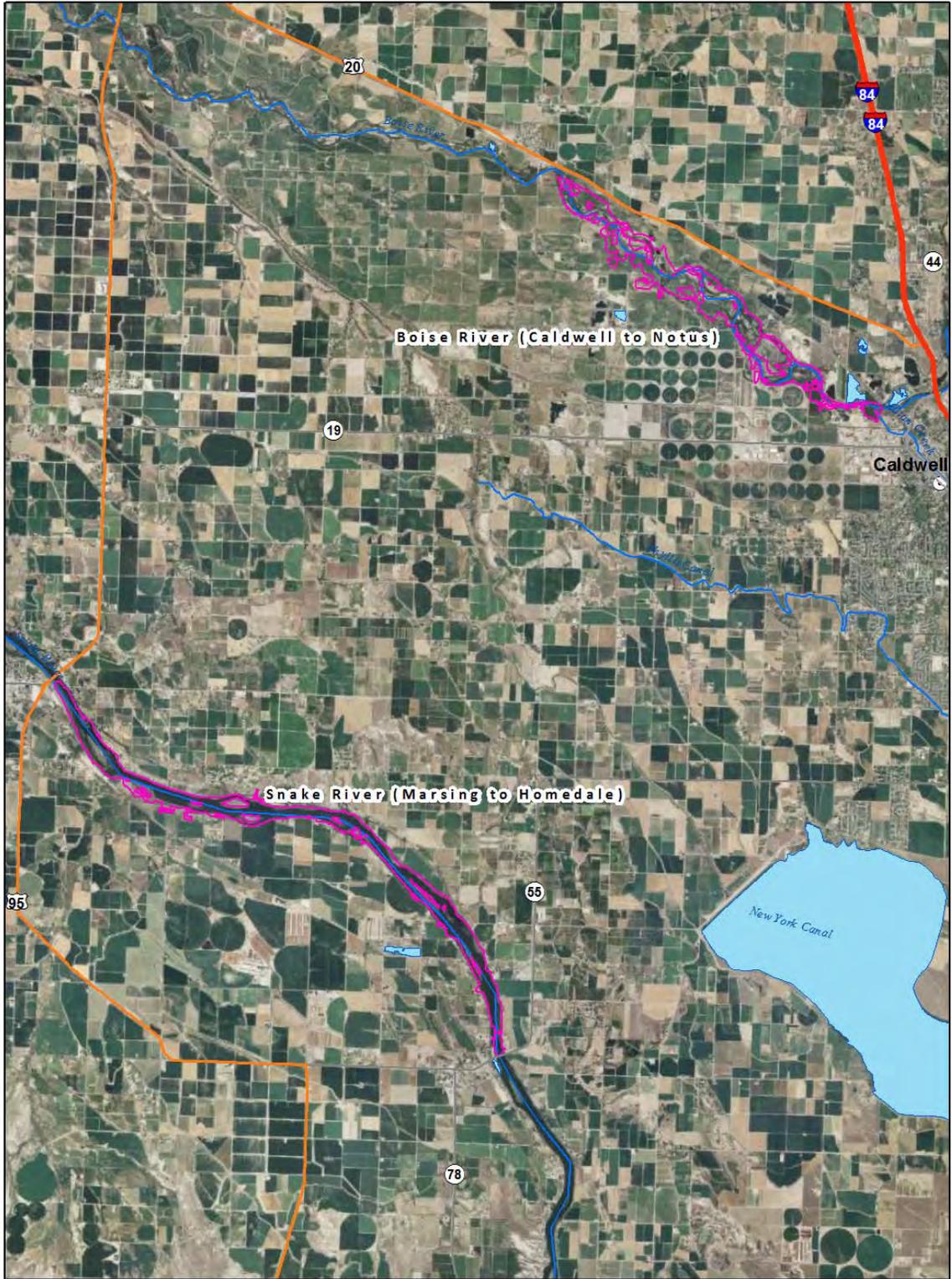


Cattail and hardstem bulrush marsh in Bruneau River valley. Photo by C. Murphy.

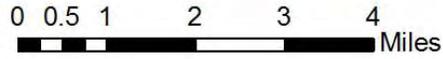
Snake River (Twin Falls to Niagara Springs) — In the reach of the Snake River below Twin Falls, numerous high volume springs fed by the Snake River aquifer emerge from basalt walls and alcoves on the northern side of the canyon. All of the springs within this site, including Crystal and Niagara Springs are valued for their high water quality and unique aquatic ecosystems. The picturesque springs gush out of canyon walls and cascade over and through talus fields to form deep, crystal clear pools and stream channels that drain into the Snake River. These channels are habitat for several locally endemic snail species, globally rare Shoshone sculpin, and a rare mussel. Patches of aquatic plants and wildflowers, including the rare giant helleborine orchid, carpet many springs. In addition to the rich aquatic ecosystem, spring and stream margins support relatively undisturbed examples of riparian vegetation. Water birch and skunkbrush sumac form dense thickets with common reedgrass interspersed. Adjacent, slightly drier slopes support alkaline wetland vegetation. The area is important for wintering waterfowl.

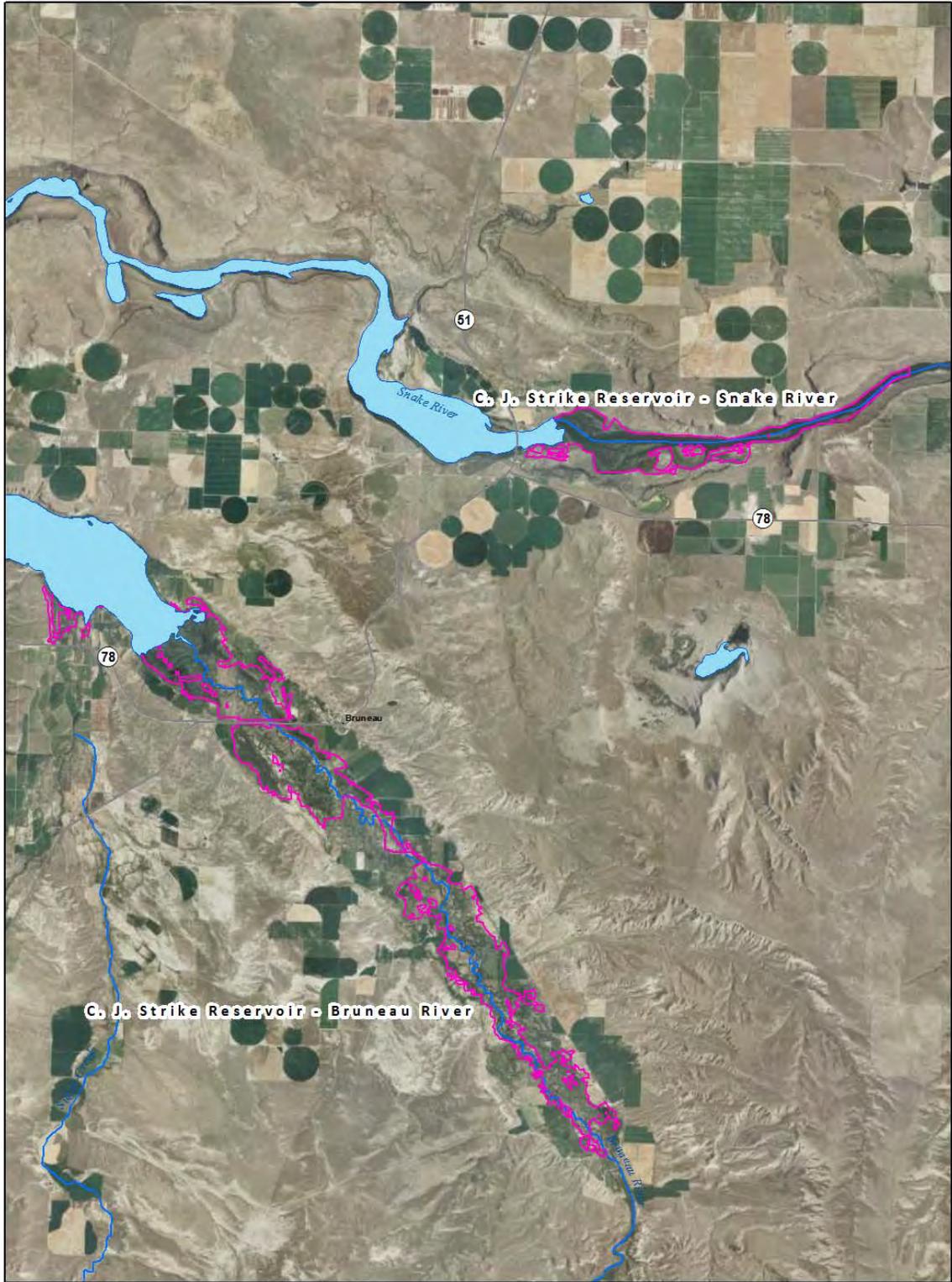


Niagara Springs. Photo by C. Murphy.



 **Priority Wetland Sites**

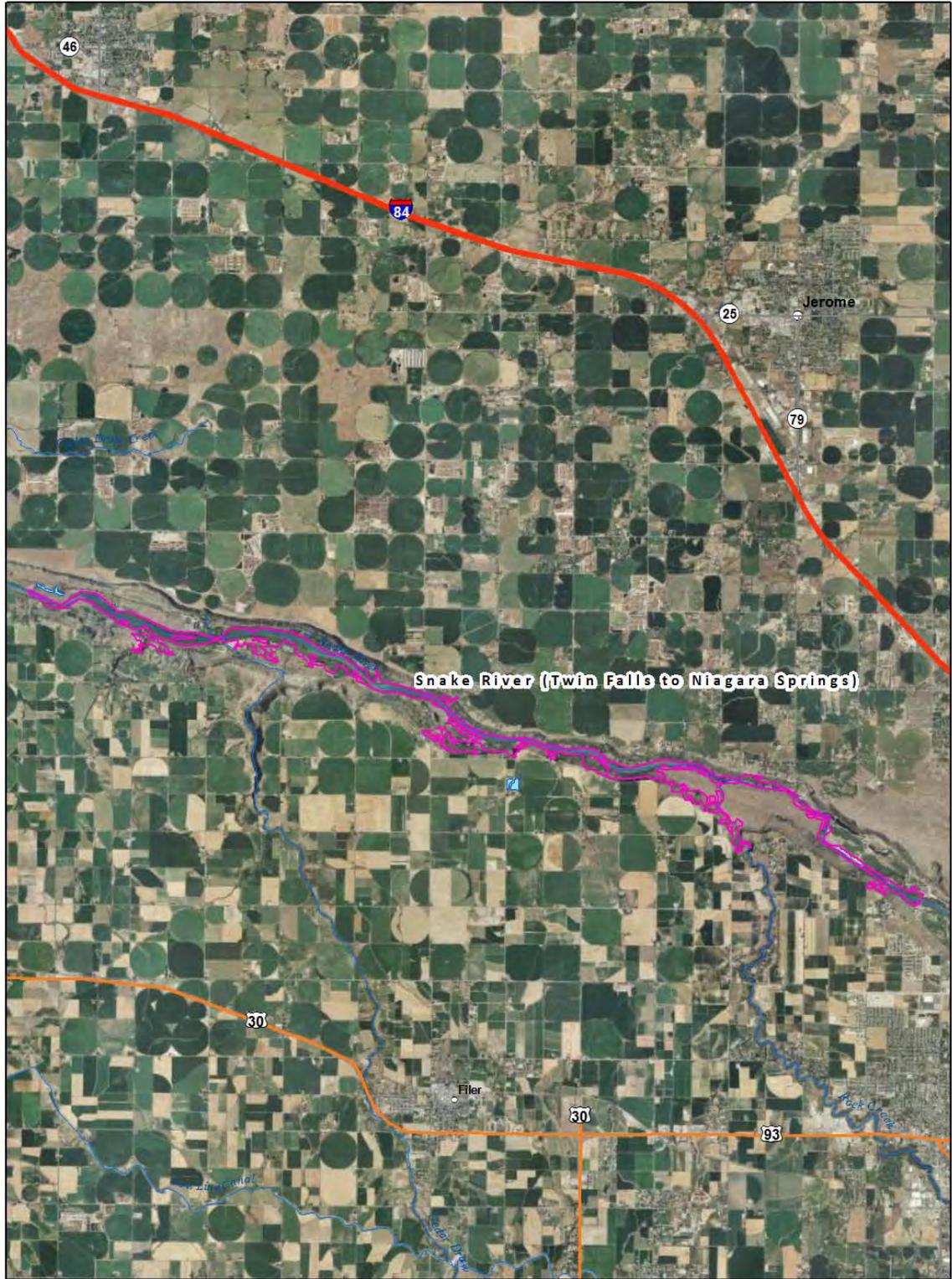




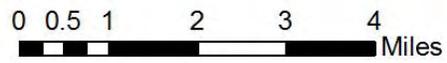
 **Priority Wetland Sites**

0 0.5 1 2 3 4 Miles





 Priority Wetland Sites



Southeast Idaho

Marsh Creek - Marsh Valley (Downey) — Marsh Creek is a slow moving stream that meanders across the bottom of Marsh Valley. The valley has a long history of agricultural use, but nearly half of the valley is still dominated by native vegetation. Permanently saturated sites are associated with springs, which emerge at or near the valley wall. Existing natural vegetation in the valley is a complex mosaic of cattail and hardstem bulrush marsh in the wettest depressions and extensive wet meadows elsewhere. Saturated meadows support Nebraska sedge, while tufted hairgrass and Baltic rush dominate slightly less wet meadows. Western wheatgrass dominates meadows that dry by mid-summer. The site is habitat for the rare northern leopard frog and globally rare snail species.

Oxford Slough — Oxford Slough is a large freshwater marsh fed by Swan Lake and nearby mountain drainages. Deep-water marshes dominated by cattail and hardstem bulrush are widespread. Shallowly flooded marsh and wet meadow communities characterized by alkali bulrush, Baltic rush, beaked sedge, and reed canarygrass occupy margins of the marsh. Grassy alkaline meadows of alkali cordgrass and inland saltgrass are interspersed, with greasewood on higher ground. There is a high concentration of waterbird and colonial nesting bird species, including black tern and Forster's tern. Much of the site is managed by the National Fish and Wildlife Service as a Waterfowl Production Area; conservation opportunities exist on adjacent private lands.

Bear River (Riverdale to Highway 91) — This reach of the Bear River meanders through a wide valley and supports an extensive riparian woodland and shrubland in its floodplain. Wet meadows and pastures occupy open valley bottom areas. These wetlands support northern leopard frogs and Bonneville cutthroat trout, both species of concern in Idaho.

Blackfoot River - Upper Valley - Lanes Creek — The upper Blackfoot River and Lanes Creek valleys are situated in cold, high elevation intermountain basins. The Blackfoot River has a moderately wide, low-gradient, sinuous channel with a wide floodplain that supports a diverse mosaic of wetland plant communities. Tall willows (e.g., Booth's and Geyer's willows) and short willows (e.g., Wolf's willow) are abundant throughout the site. Silver sagebrush occurs on drier margins of wetlands. A rich mosaic of native wet meadows occur, including extensive tufted hairgrass and analogue sedge communities, with pockets of beaked sedge, aquatic sedge, common spikerush, and Baltic rush. Several springs emerge within the site. Peat accumulation is likely. There are several ponds and seasonally flooded depressions present. The Blackfoot River supports native Yellowstone cutthroat trout.



Blackfoot River wetlands in Upper Valley.
Wet meadows and willow shrubland.
Photo by C. Murphy.

Blackfoot River - Lower Valley - Slug Creek — The Blackfoot River in Lower Valley is highly sinuous, with a low gradient. This fully functioning reach of the river has a very wide floodplain with numerous oxbow ponds, meander scar depressional wetlands, and wet meadows. Cattle pastures also occur in the valley. There are extensive, intact willow-dominated habitats along the river. The Blackfoot River supports a valuable native Yellowstone cutthroat fishery.



Blackfoot River wetlands in Lower Valley.
Wet meadow pasture and willow
shrubland. Photo by C. Murphy.

Alexander Reservoir - Soda Springs — This site is adjacent to Alexander Reservoir on the Bear River near Soda Springs. It is influenced by groundwater, springs, and spring channels. Wetlands are mostly characterized by alkaline soils and support unusual limber pine and Rocky Mountain juniper woodland plant associations, as well as wet meadows dominated by shrubby cinquefoil and tufted hairgrass. Extensive marshes provide habitat for trumpeter swans and springs include habitat for globally rare snail species. A portion of the site has been designated as the Soda Springs Natural Scenic Area.

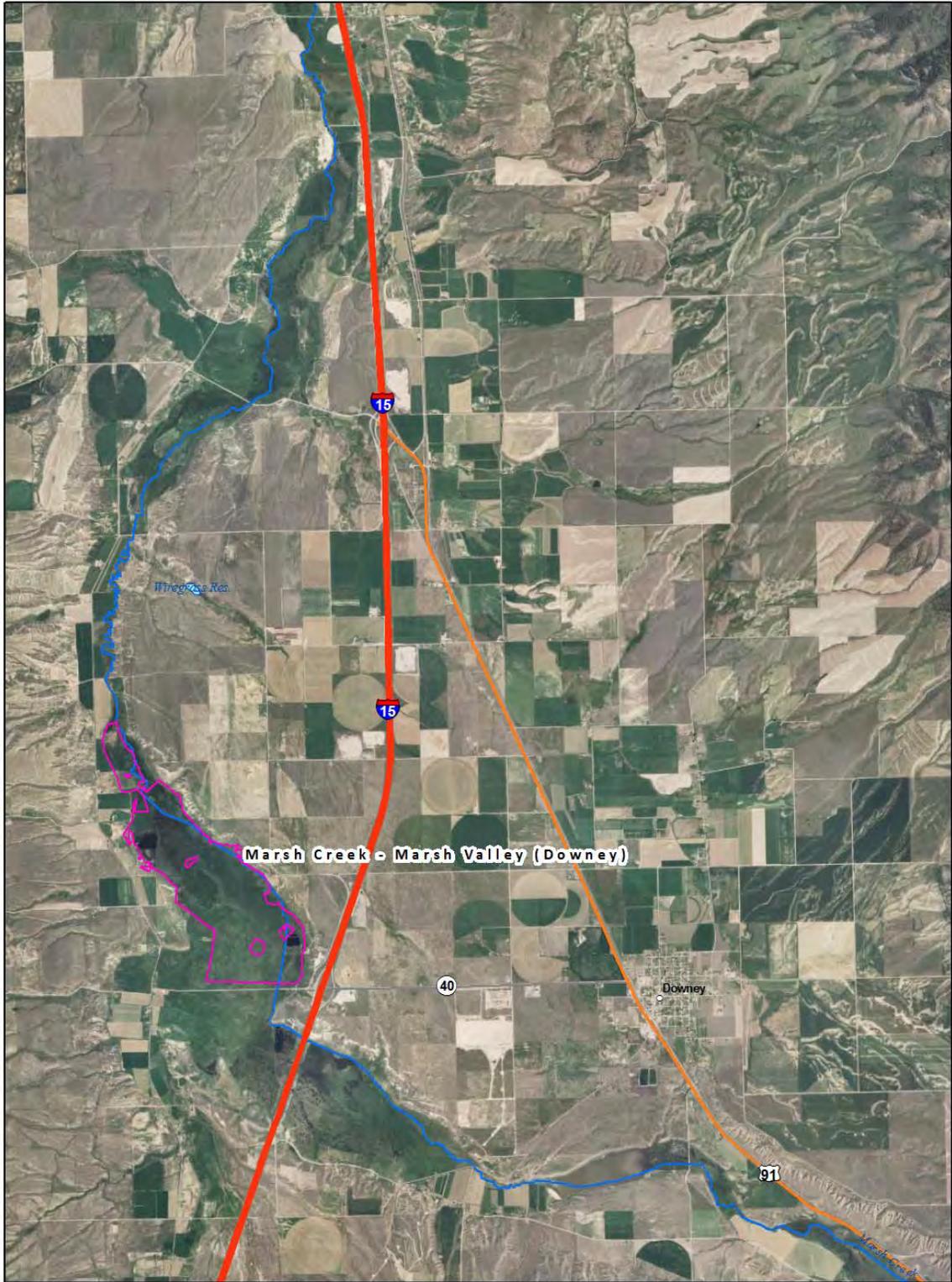
Bear River (Georgetown Summit to Eightmile Creek) — This site encompasses broad wet meadows and willow riparian shrubland in the valley of the Bear River. Portions of the site fall within the floodplain of the Bear River as it meanders across the valley. Several small ponds are present. There is habitat for northern leopard frog and globally rare snail species. The Bear River is habitat for endemic Bonneville cutthroat trout.

Nounan Valley — This site lies in the broad meadow valley of Stauffer Creek and its tributaries upstream of the Bear River. Stauffer Creek is a low gradient, highly sinuous stream that supports a relatively large, but little known wetland. There is an extensive wet meadow complex and willow-dominated riparian shrubland lines stream channels. Stauffer Creek provides habitat for Bonneville cutthroat trout and globally rare snail species.

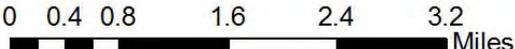
Bear Lake Valley — This site is primarily influenced by the Bear River, a wide, low-gradient river meandering through the intermountain basin of Bear Lake. Riparian corridors are a mosaic of narrowleaf cottonwood forest and dense shrublands of willows and other species. Wet meadows of tufted hairgrass, sedges, and Baltic rush are extensive, many of which are associated with side channels and tributaries. Many meadows are managed for agricultural uses. Marshes of common cattail and hardstem bulrush are interspersed in old oxbows and depressions. This large wetland provides habitat for rare amphibian, snail, and plant species.

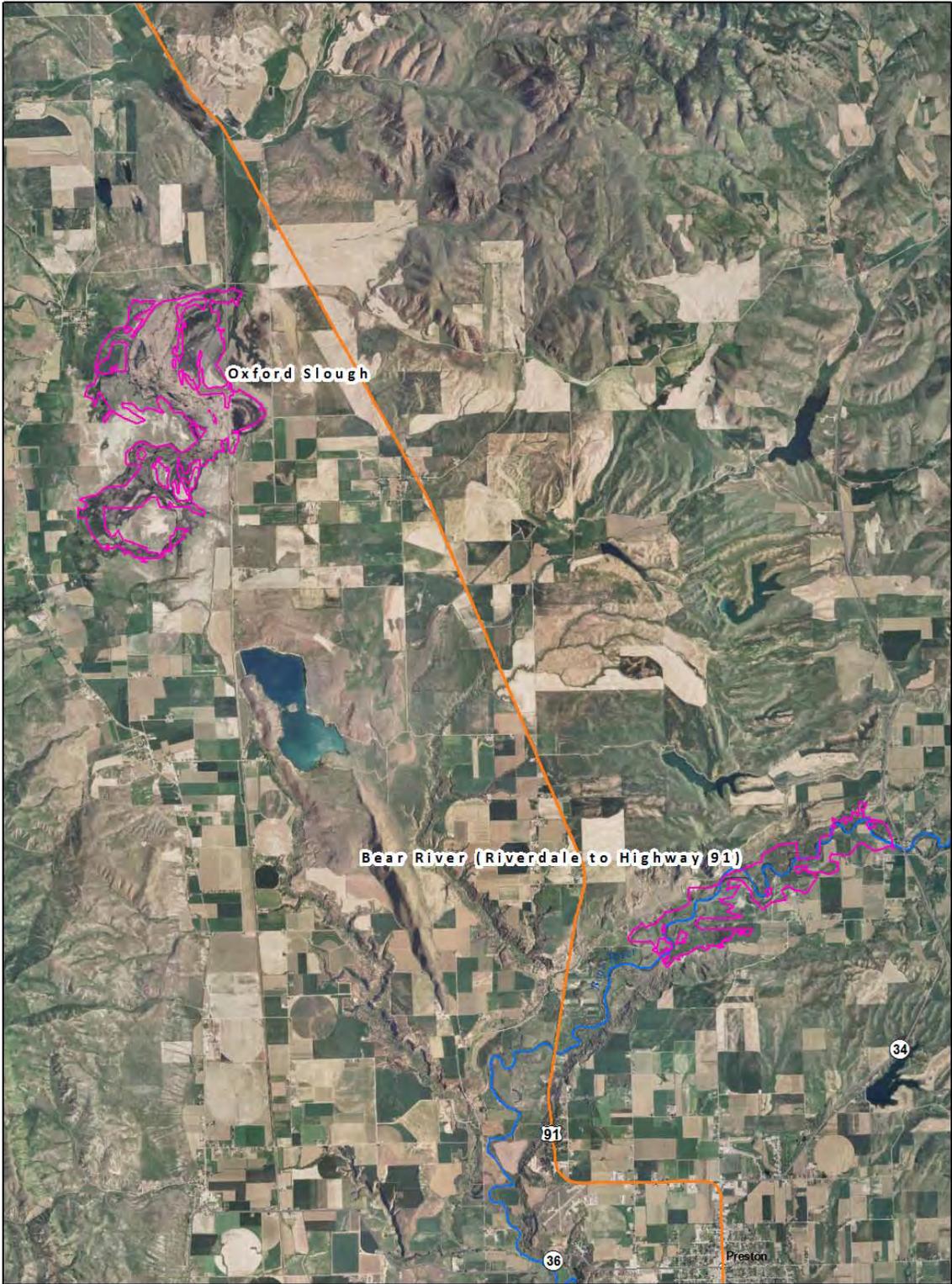
Thomas Fork Valley - Bear River — The Thomas Fork Valley is characterized by a mosaic of native meadow communities and interspersed marshes. The Thomas Fork is a wide and deep stream that meanders slowly through the valley. Beds of pondweed occur in its channel. Bordering the stream are stands of coyote and Booth's willow. Bulrush, cattail, common spikerush, and beaked sedge marshes occur in old meanders and depressions. Meadows are commonly dominated by tufted hairgrass, but also include some hayfields and pockets of alkaline soil. The wetland complex supports a high concentration of colonial nesting bird species, including black tern and Forster's tern, as well as habitat for northern leopard frogs.

Bear Lake — This site includes the margins of the Bear Lake National Wildlife Refuge and Bear Lake. It is primarily characterized by wet meadows and alkaline flats with riparian shrubland lining stream and canal channels. Bulrush and cattail marshes occur in depressions and channels within a meadow matrix of Baltic rush, common spikerush, sedges, reed canarygrass, and common reedgrass. Alkaline wetlands supporting inland saltgrass are present. Drier margins can have greasewood. Extensive riparian coyote willow shrublands line tributary streams. Margins of Bear Lake include sparsely vegetated beaches and mudflats. There is a high concentration of waterbird species, including a black tern colony and trumpeter swan habitat. Globally rare snail species are also present.

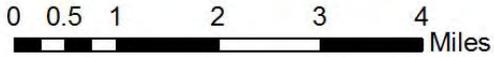


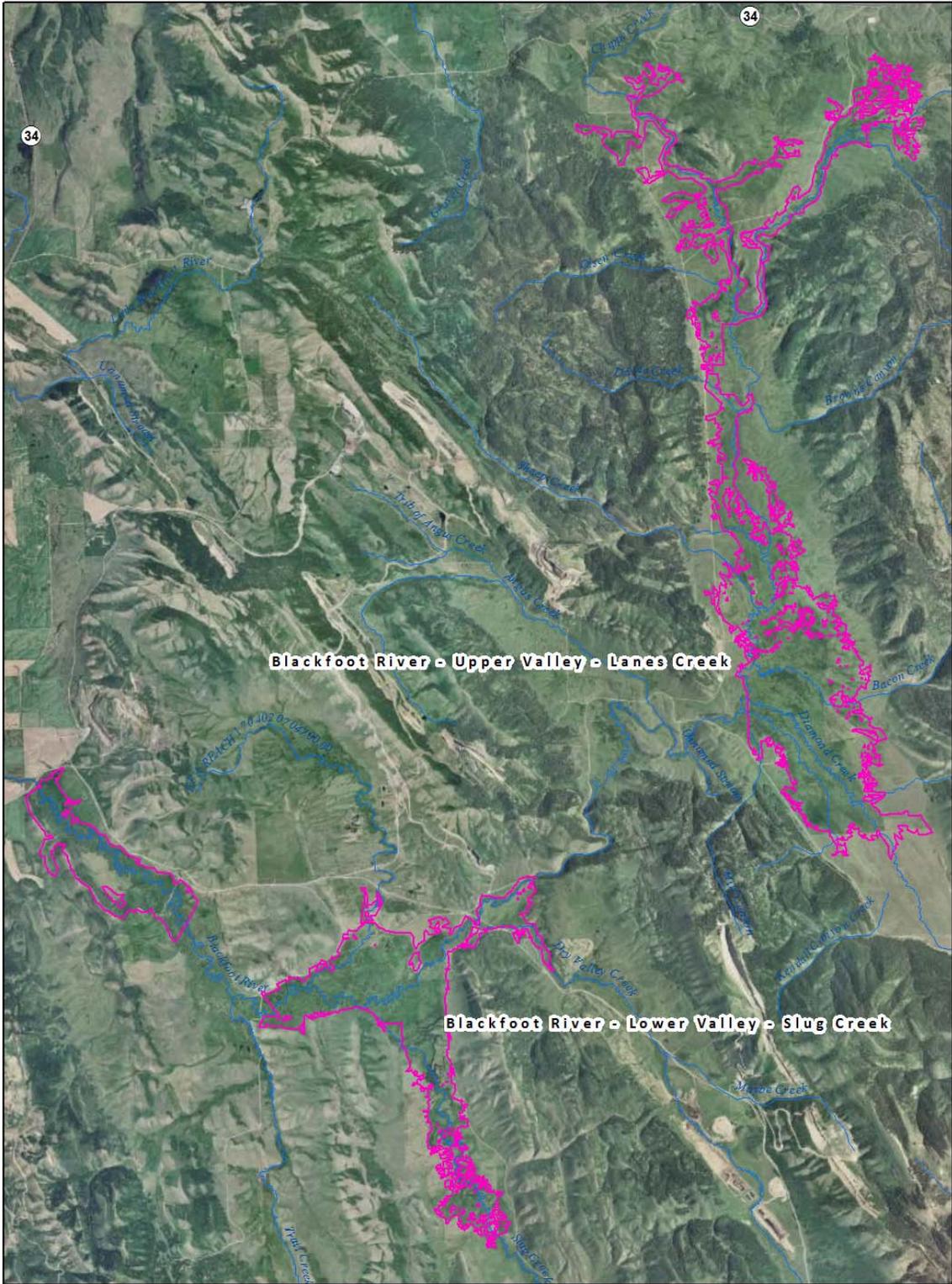
Priority Wetland Sites



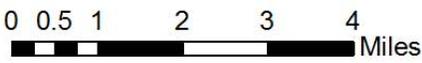


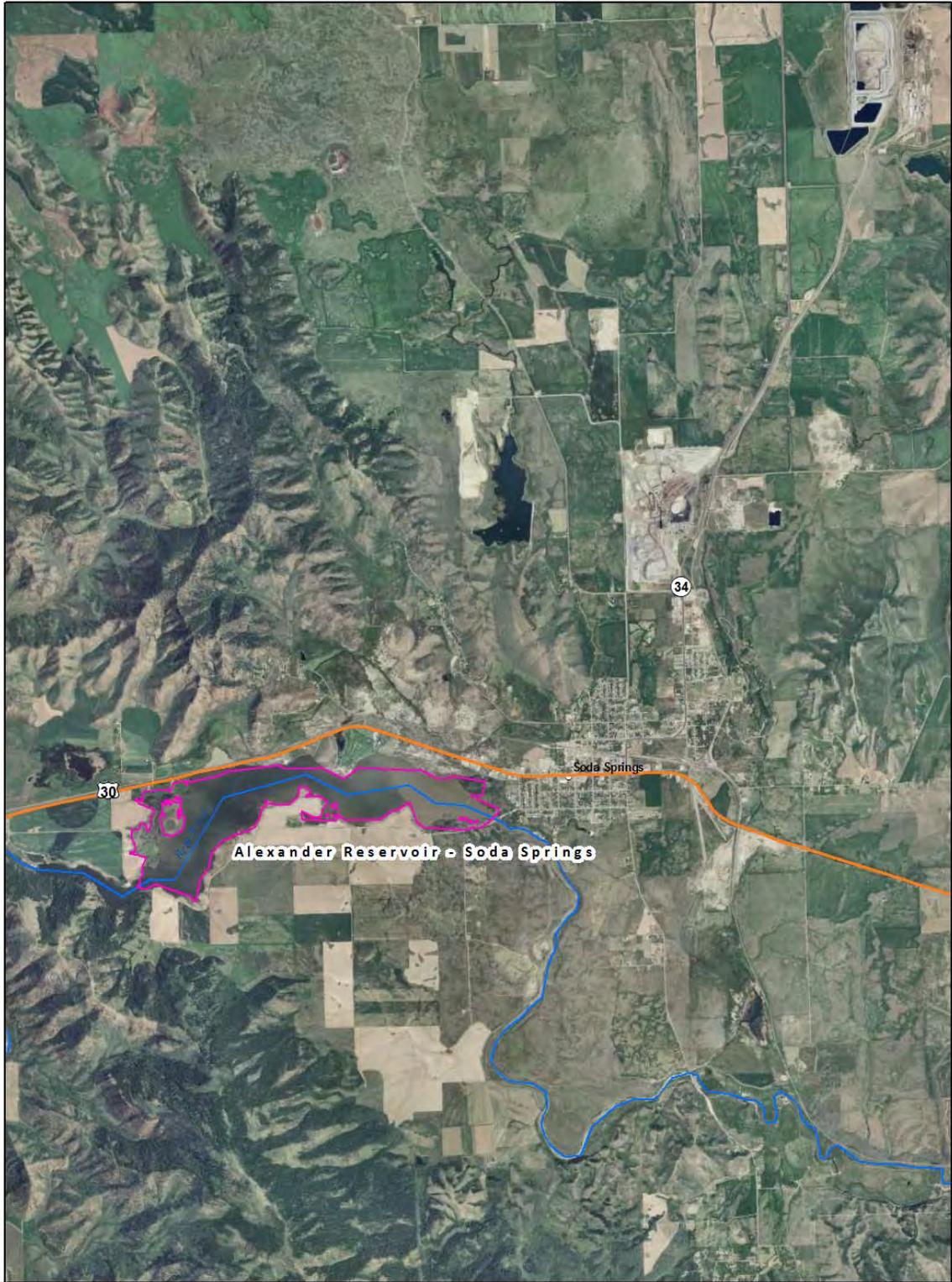
 **Priority Wetland Sites**



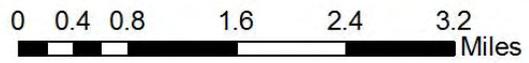


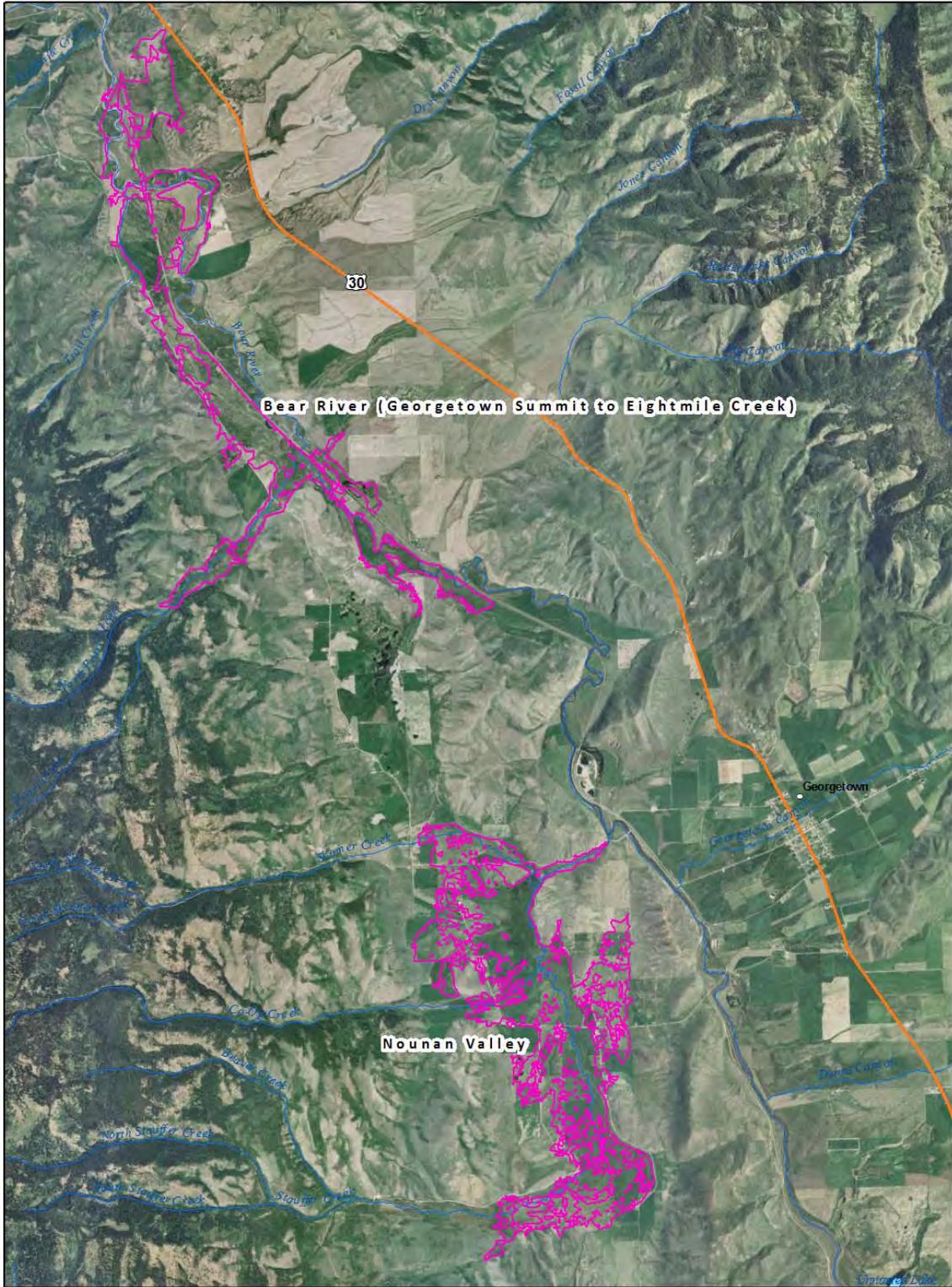
 **Priority Wetland Sites**



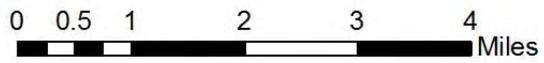


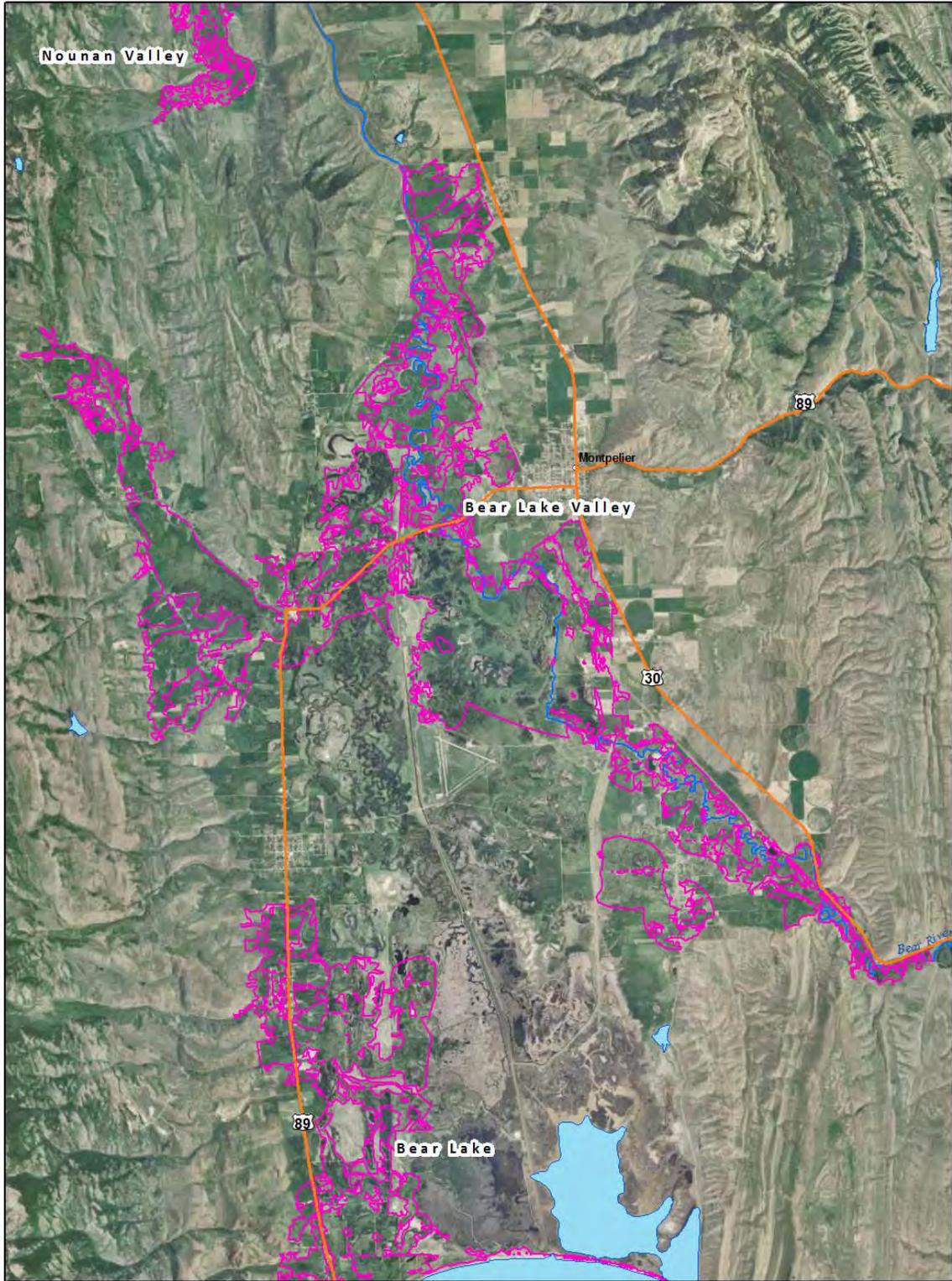
Priority Wetland Sites



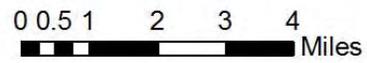


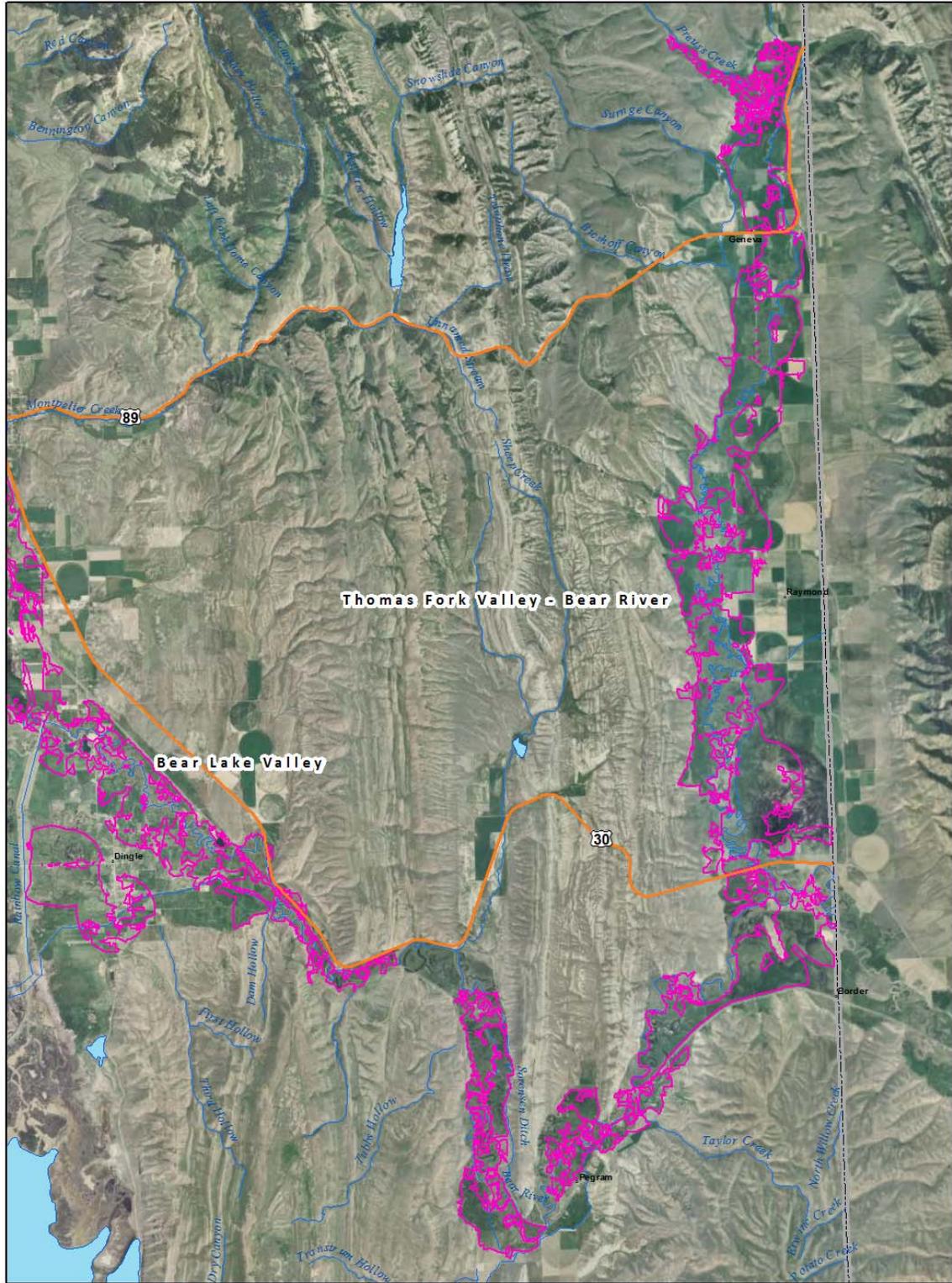
 **Priority Wetland Sites**





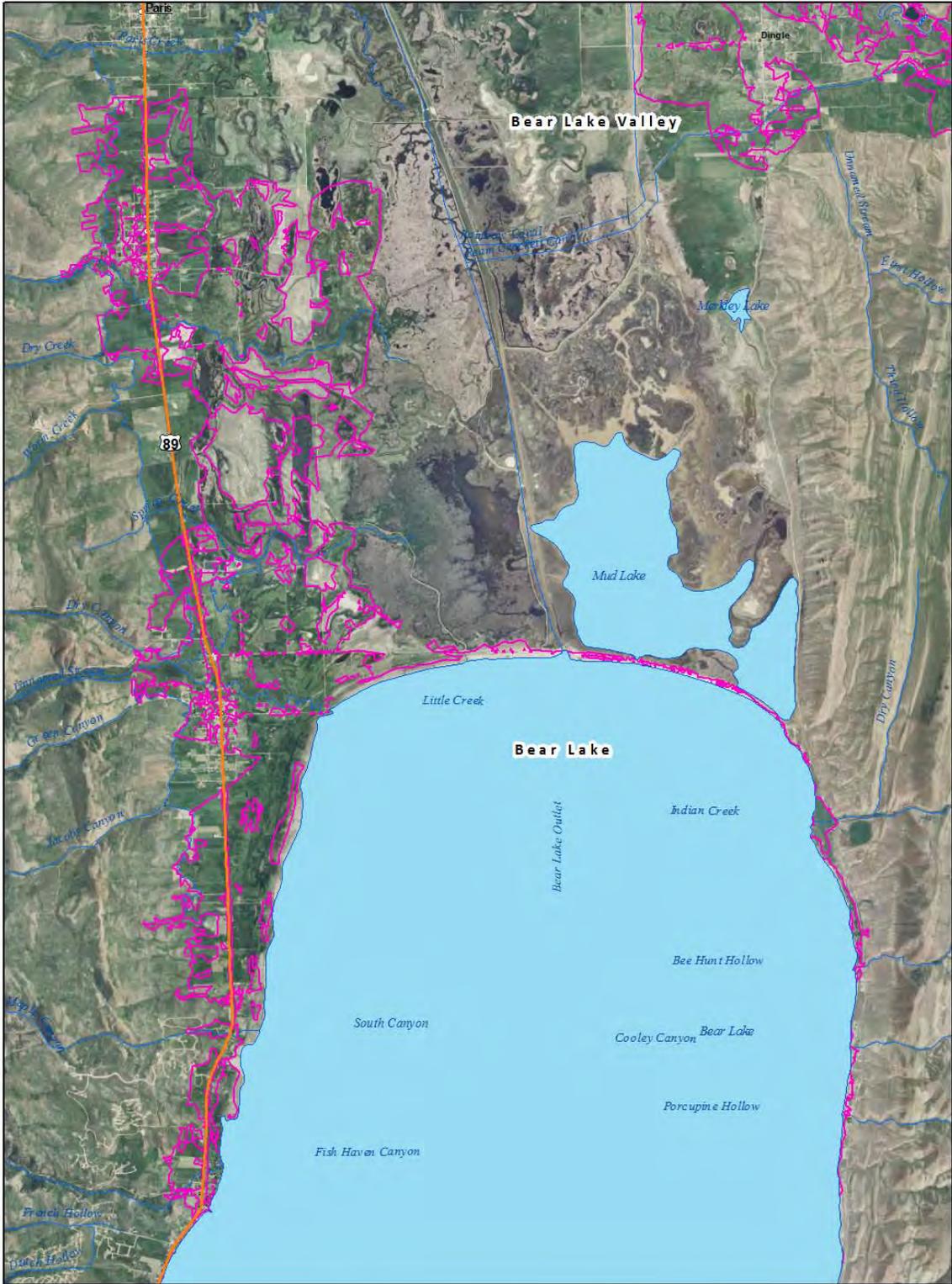
 **Priority Wetland Sites**





Priority Wetland Sites





 **Priority Wetland Sites**

